

2015

Annual Report to the Michigan Legislature

State 911 Committee

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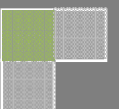


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STATE OF MICHIGAN

RICK SNYDER

GOVERNOR

STATE 911 COMMITTEE

LANSING

TIM SMITH

CHAIR

Dear Michigan Legislators:

As the chair of the State 911 Committee (SNC), I am pleased to present the 2015 Annual Report to the Michigan Legislature.

Consistent with Section 412 of Public Act 32 of 1986, as amended, each year the SNC provides the Michigan Legislature with data about Michigan's 911 systems. It is the goal of the SNC to not only provide the Legislature with the information required by statute, but also supply additional information useful to you and the citizens of Michigan. While no recommendations or changes in 911 funding are being made by the SNC in this report, it does paint an accurate picture of Michigan's 911 system right now, as well as gives you a look at the future of 911 for our state.

Since last year's Annual Report to the Legislature, there have been several noteworthy milestones reached in Michigan 911. While they are detailed further throughout this report, some of those milestones include:

- The active deployment of the interim text-to-911 solution by 911 centers across Michigan (see *Appendix 7*).
- The issuance of Smart911 Basic Deployment Guidelines for Michigan call centers (see *Appendix 9*).
- A formal request in September of 2014 to the Michigan Public Service Commission to modify the rules on Multi-Line Telephone Systems (MLTS) to clarify the requirements for MLTS in facilities over 7,000 square feet. The request was granted in June of 2015 and the completion of a MLTS operator guidelines document is currently in process.
- While not a project of the SNC, it was a significant milestone for 911 that the entire Upper Peninsula went to an IP-based Next Generation 911 (NG911) system (see a *complete report on page 11*).

There was also significant progress in the collection of prepaid wireless fees from Michigan retailers. In May of 2014, the State 911 Office added a full-time analyst position whose primary duties include the oversight of the revenues paid into the State 911 Fund. While this position covers both prepaid and postpaid sources, the initial focus was notifying the hundreds of retailers in Michigan about the prepaid 911 fee that went into effect on January 1, 2013. To date, the efforts of this analyst have resulted in an additional \$769,206 in revenue collected to support 911 programs statewide.

In closing, I sign this introductory letter with confidence that the 911 services provided to the citizens of Michigan are performed by highly trained, dedicated public safety employees. We, the members of the 911 community and the people of this great state, should be proud of our state's progress, willingness, and commitment to the betterment of 911. I would like to take this opportunity to say thank you to you, our elected leaders, for your enduring support of Michigan 911.

Sincerely,

Mr. Tim Smith, Chair
State 911 Committee

Emergency 911 Service Enabling Act Reporting Requirements

MCL484.1412 states: (1) The committee shall make a report annually on the 911 system in this state, and the state and county 911 charge required under MCL484.1401, 484.1401a, 484.1401b, 484.1401c, 484.1401d, and 484.1401e, and distributed under MCL484.1408 not later than August 1 of each year. The report shall include, at a minimum, all of the following:

A. The extent of emergency 911 service implementation in this state.

All of Michigan's 83 counties are both Phase I and Phase II compliant. At this time, all counties are delivering Enhanced 911 on both wireless and landline communications. Seven counties are providing interim text-to-911 services.

B. The actual 911 service costs incurred by Public Safety Answering Points (PSAP) and counties.

Each county was asked to report 911 costs and any other allowable 911 fund expenditures for calendar year 2014. *A detailed list of responses can be found in Appendix 1.*

The reported annual allowable expenses from 911 surcharge funds by the PSAPs and counties combined was \$95,569,526.28 (*The Conference of Eastern Wayne and Detroit Service District did not report*).

Overall, counties reported receiving \$60,606,236.97 in local 911 surcharge funding during 2014. Other funding sources reported included \$72,910,563.50 in general funds, and \$31,958,730.33 from 911 dedicated millage generated funding. Treasury reported distributing \$23,073,546 to counties in State 911 Funds during January through October 2014. (*See Appendix 3*).

While not all landline providers participate in the technical surcharge pooling process, based on the annual accounting of the landline providers and the "true up" performed by a contracted quality assurance vendor, the reported figure for technical costs in 2014 was \$7,295,111.00 (*Crawford, Delta, and Manistee Counties did not report*).

The cost of wireless 911 delivery to landline service providers (AT&T, Frontier, and PFN) reimbursed through MCL484.1408(4)(b), as approved by the Michigan Public Service Commission under Case No. U-14000, totaled \$1,366,381.48 for calendar year 2014.

C. The state 911 charge required under MCL484.1401a and a recommendation of any changes in the state 911 charge amount, or in the distribution percentages under MCL484.1408.

No changes were recommended during 2014.

D. A description of any commercial applications developed as a result of implementing the Emergency 911 Service Enabling Act, 1986 PA 32.

No providers reported any commercial applications in 2014.

E. The charge allowed under sections MCL484.1401, 484.1401a, 484.1401b, 484.1401c, 484.1401d, and 484.1401e, and a detailed record of expenditures by each county relating to this act.

County reports indicate the total revenue generated for use of 911 was \$83,593,011.36 (*The Conference of Eastern Wayne and Detroit Service District did not report*). A detailed record is set forth in Appendix 1 and the 911 surcharges for each county are contained in Appendix 2.

An Overview of 911 in Michigan

This background helps to give readers an “at-a-glance” picture of the 911 operations in Michigan.

State 911 Committee

The State 911 Committee (SNC) has 21 members representing: local public safety, private, industry, and state services (*Appendix 4*). The SNC was established in accordance with the Emergency 911 Service Enabling Act to promote the successful development, implementation, and operation of 911 systems across the state of Michigan. The SNC meets quarterly, while its subcommittees may meet more frequently.

Subcommittees of the SNC include:

Certification
Dispatcher Training
Emerging Technology
Legislative Action
Policy

What do PSAPs do?

In Michigan, 911 calls are answered at public safety answering points (PSAPs). A PSAP is a 24-hour, seven-days a week public safety emergency and non-emergency entity that responds for police, fire, and emergency medical services. PSAPs may also perform other important public safety services such as Law Enforcement Information Network (LEIN) entry, poison control transfers, and the activation of community alerts.

As of July 1, 2015, there are 147 PSAPs in Michigan, operating at various levels:

- Cities/Municipalities: 70
- County: 65
- Multi-county: 5
- State: 3
- Universities: 4

In 2014, Michigan PSAPs reported answering 5,890,159 calls on 911 lines (wireline, wireless, and VoIP combined).

A detailed record of call volumes, as reported by each county, is available in Appendix 5.

Under the Emergency 911 Service Enabling Act, 911 is established at the county level by implementing a county 911 plan. Each county determines locally how its 911 operations are funded.

As reported by Michigan’s counties (*Conference of Eastern Wayne and Detroit Service District did not report*), funding resources of \$198,505,685.96 for PSAPs were approximately included:

- State 911 Fee Distribution Received: \$22,986,774.39 (12%)
- Local 911 Fee Received: \$60,606,236.97 (30%)
- Millage Receipts: \$31,958,730.33 (16%)
- General Fund Monies: \$72,910,563.50 (37%)
- Other Receipts: \$10,043,380.77 (5%)

Note: *Some PSAPs are under the operating budget of a larger public safety entity. In such a situation, some operating costs are not reflected in the reported budget amount.*

The "Other Receipts" figure contains additional revenues such as fees and rental income, but may also indicate non-revenue funding such as loans and contracts with other counties using 911 revenue already reported.

Technical Costs

Even though some landline providers do not participate in the technical surcharge pooling process (based on the annual accounting of the landline providers and the "true up" performed by a contracted quality assurance vendor), reported technical costs in 2014 were \$7,295,111 (*Crawford, Delta, and Manistee counties did not report*).

The cost of wireless 911 delivery to landline service providers (AT&T, Frontier, and PFN) reimbursed through MCL484.1408(4)(b), as approved by the Michigan Public Service Commission under Case No. U-14000, totaled \$1,366,381.48 for calendar year 2014.

Department of State Police

In accordance with MCL484.1714, the Michigan State Police (MSP) provides staff assistance to the SNC as necessary to carry out their responsibilities. Assistance comes from the State 911 Office, which is housed within the Administrative Services Bureau (ASB) of the MSP. The commander of the ASB serves as the Michigan State Police representative to the SNC.

The State 911 Office provides a number of services to the SNC and the 911 community, including:

- Presentations on 911 issues to various public and private stakeholder groups.
- Coordination and oversight of the State 911 Dispatcher Training program and funds.
- Maintenance of the SNC website (www.michigan.gov/snc), which includes items such as:
 - List of Michigan primary PSAPs.
 - Funds distributed to counties and PSAPs by the Michigan Department of Treasury.
 - State and local 911 surcharge amounts.
 - Allowable and disallowable expenditures of 911 funds.
 - List of approved training courses.
 - Posting of meetings and minutes of the SNC and its subcommittees.
- Maintenance of centralized 911 data collection and reporting.
- Management of the Dispatcher Training/Tracking Program to ensure compliance with the Dispatcher Training Standards.
- Compliance reviews and facilitation of best practice standards.
- Statutory notices on state and local surcharges to communications providers, counties, and PSAPs.
- Assistance to members of the public, industry, and all levels of government with questions regarding 911.
- Coordination of the Annual Emerging 911 Technology Forum.
- Coordination of the activities of the SNC and its subcommittees.

Michigan State Police-Managed PSAPs

Upper Peninsula Dispatching

The MSP Negaunee Regional Communication Center (NRCC) serves as the primary PSAP, providing full dispatching services for the counties of Keweenaw, Houghton, Baraga, Ontonagon, and Schoolcraft.

From January 1 through December 31, 2014,
the NRCC answered 23,676 calls on 911.

Michigan State Police Detroit Metro-Area Wireless 911 Services

At times, wireless 911 calls cannot be processed directly to local PSAPs for reasons that include trunk loading and network outages. The MSP Detroit Regional Communication Center (DRCC) serves as one of the default routing points for these calls in the Detroit Metro area.

From January 1 through December 31, 2014,
the DRCC answered 89,818 on 911.

Michigan State Police Northern Lower Peninsula

Otsego County Central Dispatch is co-located with the MSP Gaylord Regional Communication Center (GRCC). Effective January 2014, the GRCC became the primary PSAP providing full dispatching services for Otsego County.

During the 2014 calendar year, GRCC
answered 11,840 on 911.

Michigan State Police Central and Southwest Michigan – Lansing Regional Communication Center

Michigan State Police dispatch operations for West Michigan are consolidated and located within the MSP Lansing Regional Communication Center (LRCC). Although direct 911 calls are not routed to this center, 10,920 911 calls were transferred from Kent County to LRCC in 2014.

Department of Treasury

For questions, contact Ms. Juanita Sarles at SarlesJ1@michigan.gov

The Michigan Department of Treasury is responsible for the financial administration of the State 911 Fund. Financial administration tasks include processing remittances received from telecommunication suppliers and prepaid wireless telecommunication service sellers, making distributions to counties and PSAPs as directed by the SNC, making distributions to local exchange providers as directed by the Michigan Public Service Commission, and accounting for these transactions.

Cash receipts from telecommunication suppliers, prepaid wireless telecommunication service sellers, and interest earnings for January 1, 2014, through December 31, 2014, total \$28.6 million. Treasury's Bureau of Investments invests the Emergency 911 Fund balance as part of the State's common cash fund.

Treasury processes four types of payments for the State 911 Fund:

- 1. & 2. County payments** made quarterly to counties that have a final 911 plan in place. The payments are based on 82.5% of the money deposited in the Emergency 911 Fund. Of the 82.5%, 40% is equally distributed to each qualifying county and the remaining 60% is distributed on a per capita basis to each qualifying county.
- 3. Supplier reimbursement payments** made to local exchange providers for costs related to wireless emergency service. Payments are made for reimbursements in accordance with the Michigan Public Service Commission's June 29, 2004, order in Case No. U-14000 for wireless emergency service costs recoverable pursuant to MCL484.1408(4)(b). Payments are based on 7.75% of the money deposited in the Emergency 911 Fund. As of December 31, 2014, a balance of \$4.6 million remains in the fund for disbursement.
- 4. PSAP training fund payments** made semi-annually are based on 6% of the money deposited in the Emergency 911 Fund. The 26th training fund payment of \$881,335 was made in December of 2014 and was distributed to 108 PSAPs. The next payment will occur in May of 2015.

The system to make disbursements to counties and PSAPs is a modification to the State Revenue Sharing system.

(Report as of June 2015)

See Appendix 3 for the distribution report of emergency 911 funds to counties. An overview of the emergency 911 funds is reported in Appendix 6.

Next Generation 911

Next Generation 911, known as NG911 in the public safety community, is the future framework for 911 call delivery. NG911 is a closed digital (IP-based) 911 network that is standards-based, scalable, secure, redundant, and built to meet the needs of public safety.

Why do we need to change to NG911?

- The current 911 system, while reliable, was built for analog, voice-based landline calls. Technology has changed significantly in the past two decades and the current 911 system has not kept pace as modes of communication have become digitized, mobile, and capable of sending multi-media information.
- The current 911 system is limited in its ability to process additional data that may accompany a call, to transfer calls from jurisdiction to jurisdiction, and to accommodate the advancing technologies and applications commonly used by people to receive information and communicate with one another.
- To make this happen, changes will have to be made in technology, policy, funding, and how 911 communications are managed.

NG911 Upgrade Benefits

- Upgrades to the 911 system will allow Michigan citizens access to 911 and public safety agencies using forms of communication and technology that are more robust, familiar, efficient, and easily accessible.
- Features such as sending text and pictures through 911 will be possible in the NG911 environment.
- The ability to send callers' critical information such as on-scene accident information and special needs data from 911 centers to emergency providers will be improved.
- NG911 provides more opportunities for sharing data and increased interoperability within the public safety community.
- Increased network reliability and flexibility, such as:
 - Applications that interface with and enhance 911, such as the ability to send notifications of traffic problems or the alerting of qualified citizen responders when CPR is needed nearby.
 - The ability to send photos of a crime in progress or the damage caused in a traffic crash along with a 911 call to the 911 center.
 - Direct connectivity for text-to-911.
 - Reduced limitations on the ability to transfer calls from one 911 center to another.
 - Redundant standards-based network rings that decrease vulnerability to 911 outages.
 - Dynamic call routing capabilities allowing incident or location-specific calls to be moved to alternate answering points, providing higher levels of needed responses to critical incidents and large scale events.

Michigan 911 Milestones

Text-to-911:

Each year, the SNC's Emerging Technology Subcommittee hosts an Annual 911 Technology Forum. The event features a full day of training on current 911 technical issues and includes interactive presentations and panels on relevant topics. In March of 2014, the Technology Forum was dedicated almost exclusively to the deployment of the FCC's interim text-to-911 solution.

Additionally, in March, the SNC approved a "Text-to-911 Best Practices" document (*Appendix 7*) to assist 911 centers in moving to text-to-911 services. In June of 2014, Lapeer County became the first county in Michigan to provide text-to-911 to its citizens. Other counties followed suit, and currently, there are seven counties providing text-to-911 services.

At present, more than 20% of Michigan's population is served by text-to-911 services.

Additional counties, including the entirety of the Upper Peninsula, are expected to "go live" with text-to-911 within the next few months. A map of current text-to-911 coverage is provided in *Appendix 8*. This map is also maintained on the SNC website.

Multi-Line Telephone System (MLTS):

In September of 2014, the SNC asked the Michigan Public Service Commission to amend its rules on Multi-Line Telephone Systems. The SNC believed there was a potential gap in the MLTS rules that would allow MLTS operators (owners of the systems) with facilities of greater than 7,000 square feet, but less than 40,000 square feet, an exemption from the rules. The request became MPSC Case No. U-17721. In June of 2015, the changes were approved.

The SNC has a workgroup actively completing an informational MLTS Best Practices guideline. This informal guideline is expected to be approved at the September 2015 SNC meeting. The amended MLTS rules go into effect December 31, 2016.

Smart911:

In fiscal year 2014, the Michigan Department of Community Health received a one-time appropriation to make the Smart911 Basic program available to all 911 centers in Michigan. Given the close working relationship between the State 911 Office and 911 centers, the State 911 Office worked with the SNC's Emerging Technology Subcommittee to develop a Smart911 Basic FAQ deployment document (*Appendix 9*). This document was approved by the SNC in October of 2014.

The voluntary Smart911 program offers additional features, such as PSAP-initiated text to caller, facility data, and panic button capabilities (a Smart911 product feature for emergency notification). A current status map of Smart911 deployment is provided in *Appendix 10*. This map is also maintained on the SNC website.

NG911:

While not a SNC project, the Upper Peninsula NG911 project is a significant milestone in Michigan 911.

In October of 2014, the Upper Peninsula moved from its analog 911 network to a completely IP-based NG911 network.

There are several counties currently in discussion with the Upper Peninsula's network provider for similar services. There are also several independent local projects being developed throughout the state to create regions for similarly-designed IP-based NG911 systems. To learn about the Upper Peninsula's NG911 project, see page 11.

Miscellaneous:

- Michigan is an early provider of data into the National 911 Profile database. This database, which is a significant information resource to federal, state, and local 911 systems, as well as policy makers, can be found at www.911.gov.
- In December of 2014, the SNC's Certification Subcommittee completed a "Best Practices" guide for PSAPs with regard to compliance reviews. The guide contains information on the basics of proper 911 fund use, PSAP operations, and PSAP policies (*Appendix 11*).

Upper Peninsula NG911 Project

The Upper Peninsula 911 Authority (UPA) was created through a collaborative agreement entered into under Michigan's Urban Cooperation Act of 1967, 1967 PA 7, MCL124.501 et seq. The UPA includes representatives from all 15 counties in the Upper Peninsula. The UPA is responsible for coordinating and providing a variety of services with respect to 911 emergency call answering and service dispatching across Michigan's Upper Peninsula. The Upper Peninsula Commission for Area Progress (UPCAP) serves as the secretary and administrative agent of the UPA.

The UPA continues to be proud of the success of the public-private partnerships with UPCAP, Peninsula Fiber Network (PFN), and other 911 service providers. These partnerships involve people who are working hard to ensure the Upper Peninsula is taking advantage of the latest technology available to provide 911 services to the citizens of the region.

Among their technological advances, is the establishment of an Emergency Services IP Network (ESInet), which connects each of the Upper Peninsula dispatch centers together to provide paths for data sharing and system resiliency. In October of 2014, PFN, UPCAP, and UPA announced establishment of a Next Generation 911 Call Management System. NG911 is a system comprised of managed IP-based networks and elements that augment present day E911 features and functions while adding new capabilities. It is designed to provide access to emergency services from all sources and provide multimedia data capabilities for 911 dispatch centers and emergency service providers.

The establishment of NG911 was determined to be necessary for enhanced and expanded 911 services, which are crucial to effective 911 response in the Upper Peninsula. The Upper Peninsula ESInet was constructed to meet NENA i3 standards and comply with the FCC Report and Order requirements that a network maximize availability, reliability, and resiliency of 911 networks, as well as the accountability of all participants in the 911 call completion process.

Starting in 2007, the counties of the Upper Peninsula embarked on a virtual consolidation of all 911 centers in the Upper Peninsula, which, to date, has been an overwhelming success. A shared Computer-Aided Dispatch (CAD) system for all seven county-operated dispatch centers, along with a shared 911 telephone and call answering system with NG911 capabilities, was completed in 2012. In mid-2014, they eliminated the old, single selective router process, and transitioned to two emergency services routing proxies with redundancy that provides for a more reliable network. Building the automatic back-ups and fail-overs resulted in a secure network that is robust, resilient, and reliable.

Moving forward, the UPA will be rolling out its text-to-911 services in 2015. The UPA has selected the Textty Solution through INdigital as the method for receiving and processing text-to-911.

This shared solution approach in the Upper Peninsula has resulted in cost savings while also taking advantage of the latest technologies. Additional information on the UPA can be obtained at www.upcap.org.

Report submitted by:

Mr. Tim McKee, Chippewa County

Mr. Gary Johnson, Marquette County

Certification Subcommittee Report

The Certification Subcommittee met on the following dates in 2014: March 6, May 27, June 25, August 14, September 22, and December 3.

Mr. Richard Feole, Deputy Director of Calhoun County, served as chair of the Certification Subcommittee. Four new members were appointed in 2014: Mr. Philip Bates, Mr. Raymond Hasil, Mr. Christopher Izvorski, and Mr. Robert Stewart. Mr. Melvin Maier resigned from the subcommittee in September.

The following is a brief overview of compliance reviews conducted during 2014.

1. Baraga County: The report continued from 2013 and was finalized at the March 2014 SNC meeting.
2. Houghton County: The report continued from 2013 and was finalized at the March 2014 SNC meeting.
3. Keweenaw County: The report continued from 2013 and was finalized at the March 2014 SNC meeting.
4. Lake County: The report continued from 2013 and was finalized at the March 2014 SNC meeting.
5. Ontonagon County: The report continued from 2013 and was finalized at the March 2014 SNC meeting.
6. Schoolcraft County: The report continued from 2013 and was finalized at the March 2014 SNC meeting.
7. Bay County: The County was randomly selected in March of 2014 for review. The report was finalized at the October 2014 SNC meeting.
8. Dickinson County: The County was randomly selected in May of 2014 for review. An extension was granted, and the report is currently in the draft process.
9. Marquette County: The County was randomly selected in May of 2014 for review. The report was finalized at the October 2014 SNC meeting.
10. Roscommon County: The County was randomly selected in August of 2014 for review. After an extension was granted due to a resignation at Roscommon County Central Dispatch, the on-site visit occurred in November 2014.
11. Sanilac County: The County was randomly selected in August of 2014 for review. The report is currently in the draft process.
12. Saginaw County: The County was randomly selected in December of 2014 for review. The site visit will be scheduled for a future date in 2015.

In December of 2014, the SNC's Certification Subcommittee completed a "Best Practices" guidebook for PSAPs with regard to compliance reviews. The guide contains information on the basics of proper 911 fund use, PSAP operations, and PSAP policies (*Appendix 11*).

A complete listing of the SNC Certification Subcommittee meeting minutes may be found on the SNC's website.

Dispatcher Training Subcommittee Report

For the period of January 1, 2014, through December 31, 2014, the Dispatcher Training Subcommittee (DTS) convened four meetings on the following dates: February 11, February 25, May 20, and September 30.

On February 11, 2014, the DTS reviewed 132 Dispatcher Training Fund applications received from Michigan PSAPs. Opportunities to appeal the February 11 denials were heard on February 25. Of the 132 applications, 108 were approved. Twenty-three applications were denied due to failing to spend down their previous year funds and one was denied due to a signature missing on the DTS-101 form. One PSAP had not submitted an application by the deadline and appealed to the DTS for consideration at the February 25 meeting. The appeal was denied and a further appeal to the full SNC was not filed.

The first distribution of training funds was distributed on May 27 to 1,553 Full Time Equivalents (FTE) at a rate of \$546.96 per FTE for a total distribution of \$849,440.

At the May 29, 2014, meeting, the following issues were discussed:

- An appeal request for training course denial.
- Dispatcher training course audit performed by a subcommittee member.
- Approval of instructors for training courses.
- A training course complaint.
- An exigent circumstance form submitted by a PSAP was reviewed and approved to be placed on file in the State 911 Office.

At the September 30, 2014, meeting, topics discussed included:

- A subcommittee vote to revise the Request for Training Course Approval form to include further explanation that instructors need to be approved prior to teaching an SNC-approved course.
- An appeal of a training course denial was heard and overturned by the full subcommittee.
- The date continuing education requirements begin for non-grandfathered employees was discussed and clarified by the subcommittee.
- Training course audit performed by a subcommittee member.
- A request from a PSAP for an extension of the training standards.
- A report of exigent circumstances from a PSAP was approved to be placed on file.
- A delinquent telecommunicator report was provided.
- Revisions to the Dispatcher Training Fund Application for 2015 were discussed.

The November distribution of training funds was reviewed and approved.

The second distribution of training funds was distributed on November 24 to 1,553 FTE's at a rate of \$567.50 per FTE for a total distribution of \$881,335.

For a complete list of training fund payments by county by year, see Appendix 12.

County Financial Information Detail

Appendix 1

County	State 911 Fee Distribution Received	Local 911 Fee Received	Dispatcher Training Fund Monies PSAPs in County Received	911 Millage Receipts	General Fund Monies	Other Receipts	911 Funding From All Sources (all PSAPs in County)	Allowable PSAP Expenses from 911 Surcharge Funds	Allowable Non- PSAP Expenses from 911 Surcharge Funds	Unexpended 911 Surcharge Funds	Carryover of Unexpended 911 Surcharge Funds Prior to 2013
Alcona	\$126,525.00	\$335,082.00	\$8,916.00	\$0.00	\$0.00	\$14,103.00	\$484,626.00	\$484,626.00	\$0.00		
Alger	\$127,990.00	\$41,987.44	\$3,343.00	\$0.00	\$0.00	\$1,195.00	\$171,172.44	\$226,190.00	\$0.00	\$14,639.00	\$0.00
Allegan	\$907,471.00	\$2,419,107.00	\$0.00	\$0.00	\$340,295.00	\$60,016.00	\$3,726,889.00	\$3,326,578.00	\$0.00	\$0.00	\$0.00
Alpena	\$152,675.00	\$743,585.22	\$12,259.00	\$0.00	\$0.00	\$1,428.74	\$921,429.96	\$888,078.35	\$0.00	\$8,163.87	\$463,815.24
Antrim	\$147,311.00	\$0.00	\$10,031.00	\$844,699.68	\$0.00	\$3,337.67	\$1,005,379.35	\$28,496.03	\$0.00	\$118,814.97	\$220,980.03
Arenac	\$133,468.00	\$36,472.32	\$11,145.00	\$322,906.11	\$0.00	\$9,643.78	\$513,635.21	\$174,344.94	\$0.00	\$6,740.38	\$0.00
Baraga	\$123,609.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,624.00	\$125,233.00	\$140,912.00	\$0.00	\$0.00	\$0.00
Barry	\$194,082.00	\$0.00	\$15,602.00	\$1,367,358.34	\$0.00	\$50,041.39	\$1,627,083.73	\$589,231.47	\$0.00	\$127,931.91	\$0.00
Bay	\$265,415.00	\$0.00	\$25,593.00	\$1,974,223.38	\$0.00	\$194,555.05	\$2,459,786.43	\$291,008.00	\$0.00	\$0.00	\$0.00
Benzie	\$135,746.00	\$583,776.69	\$10,031.00	\$0.00	\$0.00	\$0.00	\$729,553.69	\$634,551.00	\$0.00	\$84,970.76	\$266,978.71
Berrien	\$330,846.00	\$691,728.00	\$0.00	\$3,336,664.00	\$0.00	\$186,434.00	\$4,360,022.00	\$1,041,140.00	\$0.00	\$0.00	\$244,917.00
Branch	\$132,025.47	\$111,987.54	\$0.00	\$1,191,977.14	\$0.00	\$126,000.01	\$1,561,990.16	\$244,013.01	\$0.00	\$0.00	\$0.00
Calhoun	\$308,348.00	\$800,303.00	\$32,484.00	\$0.00	\$2,469,000.00	\$31,920.00	\$3,642,055.00	\$1,141,135.00	\$0.00	\$0.00	\$0.00
Cass	\$184,444.00	\$593,943.53	\$10,711.00	\$372,213.01	\$0.00	\$37,080.28	\$1,198,391.82	\$789,098.53	\$0.00	\$0.00	\$0.00
CCE (Charlevoix, Cheboygan, Emmet)	\$440,000.00	\$649,200.00	\$23,404.00	\$0.00	\$1,362,490.00	\$82,122.00	\$1,884,295.00	\$1,089,200.00	\$0.00	\$0.00	\$0.00
Chippewa	\$168,684.00	\$492,521.74	\$14,488.00	\$0.00	\$8,196.09	\$212,061.31	\$895,951.14	\$675,693.74	\$0.00	\$0.00	\$0.00
Clare	\$114,924.00	\$116,046.00	\$5,470.00	\$98,458.00	\$0.00	\$0.00	\$334,898.00	\$238,613.00	\$0.00	\$0.00	\$238,613.00
Clinton	\$221,419.00	\$1,909,594.33	\$16,716.00	\$0.00	\$170,346.92	\$35,181.34	\$2,353,257.59	\$1,559,409.05	\$0.00	\$571,604.28	\$2,423,344.61
Crawford	\$339,688.77	\$0.00	\$0.00	\$0.00	\$15,168.43	\$130,911.00	\$485,768.20	\$505,932.20	\$0.00	\$0.00	\$20,000.00
Delta	\$162,128.00	\$243,286.00	\$10,711.00	\$376,874.00	\$0.00	\$22,149.00	\$815,148.00	\$405,414.00	\$0.00	\$0.00	\$0.00
Dickinson	\$151,013.00	\$164,097.67	\$11,145.00	\$380,466.16	\$210,167.00	\$0.00	\$916,888.83	\$330,034.40	\$0.00	\$0.00	\$0.00
Eaton	\$327,698.00	\$0.00	\$24,518.00	\$3,086,428.40	\$0.00	\$0.00	\$3,438,644.40	\$352,216.00	\$0.00	\$0.00	\$0.00
Genesee	\$707,602.01	\$5,459,706.00	\$77,943.00	\$0.00	\$1,601,000.00	\$0.00	\$7,846,251.01	\$6,167,308.01	\$0.00	\$0.00	\$0.00
Gladwin	\$147,185.00	\$122,201.21	\$12,259.00	\$687,538.49	\$0.00	\$2,199.88	\$971,383.58	\$73,789.48	\$0.00	\$170,608.29	\$654,796.86
Gogebic	\$137,078.00	\$154,704.68	\$0.00	\$0.00	\$0.00	\$0.00	\$291,782.68	\$314,640.23	\$0.00	\$0.00	\$143,114.54
Grand Traverse	\$238,020.00	\$795,101.00	\$21,174.00	\$0.00	\$619,985.00	\$6,063.00	\$1,680,343.00	\$1,054,295.00	\$0.00	\$0.00	\$0.00
Gratiot	\$174,344.00	\$1,039,344.70	\$10,031.00	\$0.00	\$0.00	\$0.00	\$1,223,719.70	\$1,249,203.00	\$0.00	\$0.00	\$0.00
Hillsdale	\$176,594.00	\$883,125.81	\$15,602.00	\$0.00	\$0.00	\$32,018.15	\$1,107,339.96	\$1,125,728.70	\$0.00	\$66,008.89	\$302,642.11
Houghton	\$162,502.00	\$342,871.00	\$0.00	\$0.00	\$0.00	\$2,886.00	\$506,259.00	\$386,848.00	\$0.00	\$121,411.00	\$0.00
Huron	\$160,956.00	\$923,125.00	\$12,259.00	\$0.00	\$235,000.00	\$835,695.00	\$2,167,035.00	\$2,163,920.00	\$0.00	\$3,115.00	\$956,857.00
Ingham	\$504,648.00	\$1,212,405.59	\$65,753.00	\$5,587,015.85	\$0.00	\$272,680.05	\$7,637,401.44	\$1,717,053.59	\$0.00	\$0.00	\$0.00
Ionia	\$205,000.00	\$1,034,219.11	\$14,488.00	\$0.00	\$0.00	\$6,919.99	\$1,260,627.10	\$1,253,707.11	\$0.00	\$0.00	\$0.00
Iosco	\$150,611.00	\$562,708.00	\$12,259.00	\$0.00	\$0.00	\$0.00	\$725,578.00	\$657,018.00	\$0.00	\$226,170.00	\$883,188.00
Iron	\$130,483.00	\$331,711.50	\$0.00	\$0.00	\$173,000.00	\$98,392.88	\$733,587.38	\$462,194.50	\$0.00	\$0.00	\$0.00
Isabella	\$209,683.00	\$800,148.00	\$14,488.00	\$0.00	\$0.00	\$1,408.00	\$1,025,727.00	\$1,331,527.00	\$0.00	\$0.00	\$1,167,417.66

County	State 911 Fee Distribution Received	Local 911 Fee Received	Dispatcher Training Fund Monies PSAPs in County Received	911 Millage Receipts	General Fund Monies	Other Receipts	911 Funding From All Sources (all PSAPs in County)	Allowable PSAP Expenses from 911 Surcharge Funds	Allowable Non- PSAP Expenses from 911 Surcharge Funds	Unexpended 911 Surcharge Funds	Carryover of Unexpended 911 Surcharge Funds Prior to 2013
Jackson	\$335,657.00	\$722,578.97	\$0.00	\$0.00	\$739,784.69	\$64,017.74	\$1,862,038.40	\$1,913,291.65	\$0.00	\$216,605.29	\$1,104,124.67
Kalamazoo	\$468,881.69	\$0.00	\$37,892.00	\$0.00	\$3,707,443.54	\$278,822.00	\$4,504,184.23	\$693,323.76	\$0.00	\$0.00	\$1,009.22
Kalkaska	\$138,116.00	\$428,989.00	\$6,687.00	\$0.00	\$0.00	\$3,179.00	\$576,971.00	\$651,017.00	\$0.00	\$0.00	\$583,860.00
Kent	\$975,688.00	\$2,921,595.00	\$102,530.00	\$0.00	\$4,806,483.00	\$2,063,554.00	\$10,869,850.00	\$2,659,800.00	\$1,285,875.00	\$116,197.00	\$6,247,212.00
Keweenaw	\$116,722.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$116,722.00	\$13,522.00	\$56,330.00	\$46,869.00	\$453,987.00
Lake	\$124,155.00	\$0.00	\$12,259.00	\$909,475.24	\$0.00	\$2,500.00	\$1,048,389.20	\$20,028.96	\$0.00	\$116,385.04	\$461,853.82
Lapeer	\$239,926.00	\$1,490,950.00	\$20,060.00	\$0.00	\$0.00	\$19,586.00	\$1,770,522.00	\$1,581,871.00	\$0.00	\$169,065.00	\$644,671.00
Leelanau	\$144,632.00	\$0.00	\$11,145.00	\$0.00	\$628,315.00	\$170,356.00	\$954,448.00	\$156,591.00	\$0.00	\$0.00	\$0.00
Lenawee	\$256,482.00	\$1,156,778.00	\$20,060.00	\$0.00	\$0.00	\$18,708.00	\$1,452,028.00	\$1,687,794.00	\$0.00	\$0.00	\$475,182.00
Livingston	\$372,468.00	\$4,210,737.44	\$30,090.00	\$0.00	\$0.00	\$237,145.56	\$4,850,441.00	\$3,874,649.27	\$0.00	\$708,556.17	\$5,962,452.27
Luce	\$123,063.00	\$69,927.98	\$0.00	\$0.00	\$0.00	\$1,987.37	\$194,978.35	\$141,038.82	\$30,886.98	\$21,065.18	\$276,659.06
Mackinac	\$124,475.00	\$181,870.79	\$0.00	\$0.00	\$0.00	\$0.00	\$306,345.79	\$425,771.00	\$0.00	\$0.00	\$384,598.20
Macomb	\$1,314,654.00	\$0.00	\$113,676.00	\$0.00	\$12,654,070.78	\$0.00	\$0.00	\$1,314,654.00	\$0.00	\$0.00	\$0.00
Manistee	\$109,600.00	\$0.00	\$0.00	\$856,121.00	\$0.00	\$41,789.00	\$1,007,510.00	\$109,600.00	\$0.00	\$0.00	\$0.00
Marquette	\$209,537.00	\$0.00	\$12,259.00	\$1,073,463.00	\$0.00	\$3,541.00	\$1,298,800.00	\$209,537.00	\$0.00	\$0.00	\$0.00
Mason Oceana	\$306,230.00	\$1,111,327.00	\$17,831.00	\$0.00	\$0.00	\$47,229.86	\$1,482,617.86	\$1,426,132.30	\$0.00	\$8,575.30	\$0.00
Meceola (Mecosta-Osceola)	\$315,300.00	\$1,232,636.76	\$17,831.00	\$0.00	\$0.00	\$45,081.83	\$1,610,849.59	\$1,703,531.89	\$0.00	\$0.00	\$92,682.30
Menominee	\$144,856.00	\$536,753.00	\$5,470.00	\$0.00	\$0.00	\$223.00	\$687,302.00	\$696,189.00	\$0.00	\$0.00	\$350,178.00
Midland	\$228,336.00	\$0.00	\$20,060.00	\$2,112,379.38	\$0.00	\$97,000.00	\$2,457,775.38	\$242,514.74	\$0.00	\$5,881.26	\$0.00
Missaukee	\$135,420.00	\$0.00	\$6,687.00	\$0.00	\$0.00	\$1,189.00	\$143,296.00	\$131,852.98	\$0.00	\$12,515.45	\$471,961.96
Monroe	\$324,133.00	\$731,235.00	\$23,404.00	\$0.00	\$935,180.00	\$0.00	\$2,013,952.00	\$2,149,558.00	\$0.00	\$0.00	\$0.00
Montcalm	\$198,699.00	\$1,317,990.71	\$21,422.00	\$0.00	\$0.00	\$16,965.46	\$1,555,077.17	\$1,518,493.42	\$0.00	\$36,583.75	\$0.00
Montmorency	\$153,680.36	\$98,475.16	\$0.00	\$0.00	\$30,000.00	\$171.95	\$282,327.47	\$302,704.76	\$0.00	\$0.00	\$0.00
Muskegon	\$352,403.00	\$553,982.00	\$33,227.00	\$1,232,643.00	\$0.00	\$1,136,900.00	\$3,309,155.00	\$352,403.00	\$553,982.00	\$0.00	\$0.00
Newaygo	\$182,903.00	\$776,741.00	\$11,145.00	\$0.00	\$28,061.00	\$0.00	\$998,850.00	\$951,659.00	\$0.00	\$7,985.00	\$0.00
Oakland	\$1,833,676.00	\$3,359,048.14	\$225,956.00	\$0.00	\$21,676,735.00	\$2,499,379.00	\$29,594,794.14	\$13,446,267.35	\$0.00	\$0.00	\$0.00
Ogemaw	\$140,000.00	\$326,232.00	\$11,145.00	\$0.00	\$182,816.00	\$0.00	\$660,193.00	\$466,232.00	\$0.00	\$0.00	\$0.00
Ontonagon	\$120,694.00	\$35,003.07	\$0.00	\$0.00	\$0.00	\$0.00	\$155,697.07	\$100,185.51	\$0.00	\$55,511.56	\$752,770.14
Oscoda	\$123,300.00	\$36,476.10	\$0.00	\$0.00	\$66,859.26	\$0.00	\$226,635.36	\$139,916.93	\$0.00	\$19,859.17	\$265,749.26
Otsego	\$145,044.00	\$437,054.58	\$0.00	\$0.00	\$0.00	\$0.00	\$582,098.58	\$681,290.00	\$0.00	\$0.00	\$429,685.00
Ottawa	\$490,970.00	\$0.00	\$36,778.00	\$4,162,742.45	\$0.00	\$184,917.60	\$4,875,408.05	\$490,970.00	\$0.00	\$0.00	\$0.00
Presque Isle	\$129,934.00	\$57,812.72	\$0.00	\$0.00	\$0.00	\$0.00	\$187,746.72	\$144,171.48	\$0.00	\$43,575.24	\$2,573.00
Roscommon	\$145,506.27	\$0.00	\$13,374.00	\$823,231.39	\$0.00	\$143,326.83	\$1,125,438.49	\$158,880.27	\$0.00	\$0.00	\$0.00

County	State 911 Fee Distribution Received	Local 911 Fee Received	Dispatcher Training Fund Monies PSAPs in County Received	911 Millage Receipts	General Fund Monies	Other Receipts	911 Funding From All Sources (all PSAPs in County)	Allowable PSAP Expenses from 911 Surcharge Funds	Allowable Non- PSAP Expenses from 911 Surcharge Funds	Unexpended 911 Surcharge Funds	Carryover of Unexpended 911 Surcharge Funds Prior to 2013
Saginaw	\$391,575.00	\$5,410,202.00	\$42,349.00	\$0.00	\$0.00	\$252,030.00	\$6,096,156.00	\$5,934,482.00	\$0.00	\$161,674.00	\$5,844,126.00
Sanilac	\$175,257.00	\$184,516.35	\$10,031.00	\$295,407.31	\$216,677.44	\$11,400.00	\$893,289.10	\$363,610.17	\$0.00	\$6,194.18	\$0.00
Schoolcraft	\$123,083.00	\$32,830.90	\$0.00			\$5,676.14	\$161,590.04	\$259,204.10	\$0.00	\$0.00	\$418,217.85
Shiawasee	\$214,647.00	\$906,661.68	\$13,374.00	\$0.00	\$0.00	\$57,185.91	\$1,191,868.59	\$1,262,322.50	\$0.00	\$0.00	\$71,236.34
St. Clair	\$346,822.00	\$1,072,906.58	\$21,174.00	\$0.00	\$538,380.90	\$61,930.12	\$2,041,213.60	\$1,440,635.34	\$0.00	\$0.00	\$0.00
St. Joseph	\$201,266.00	\$338.00	\$18,946.00	\$866,445.00	\$0.00	\$89,143.00	\$1,176,138.00	\$119,021.00	\$0.00	\$101,529.00	\$529,397.00
Tuscola	\$193,303.00	\$1,112,977.54	\$13,374.00	\$0.00	\$0.00	\$11,001.37	\$1,330,655.91	\$1,356,199.82	\$0.00	\$0.00	\$465,511.38
Van Buren	\$162,152.00	\$1,042,747.79	\$16,661.00	\$0.00	\$0.00	\$2,877.51	\$1,224,438.83	\$1,174,958.97	\$0.00	\$49,479.86	\$897,300.34
Washtenaw	\$606,836.00	\$1,738,776.29	\$76,900.00	\$0.00	\$4,767,452.45	\$0.00	\$7,189,964.74	\$2,084,208.41	\$117,280.56	\$144,123.31	\$572,413.28
Wayne - Conf. of Western Wayne	\$996,962.00	\$2,171,824.00	\$50,151.00	\$0.00	\$10,608,010.00	\$0.00	\$13,826,947.00	\$3,003,967.00	\$164,819.00	\$0.00	\$0.00
Wayne - Conf. of Eastern Wayne											
Wayne - Downriver Mutual Aid	\$589,104.82	\$1,409,163.34	\$47,923.00	\$0.00	\$3,605,451.00	\$0.00	\$5,651,642.16	\$2,132,123.00	\$291,192.00	\$0.00	\$2,591,066.00
Wayne - Detroit Service District											
Wexford	\$160,409.00	\$135,008.00	\$0.00	\$0.00	\$514,195.00	\$16,500.00	\$826,112.00	\$269,839.00	\$0.00	\$25,578.00	\$322,064.00
TOTAL	\$22,986,774.39	\$60,606,236.97	\$1,624,694.00	\$31,958,730.33	\$72,910,563.50	\$10,043,380.77	\$185,201,591.62	\$93,069,160.74	\$2,500,365.54	\$3,461,968.33	\$38,659,205.85

Michigan 911 County Surcharges
as compiled by the Michigan Public Service Commission Staff
Rates effective July 1, 2015
For questions, contact Mr. Josh McConkie at McConkieJ@michigan.gov

Appendix 2

County	Technical Charge: Recurring*	Technical Charge: Nonrecurring*	County Charge**	Total
Alcona	\$ 0.80	\$ -	\$ 3.00	\$ 3.80
Alger	\$ 0.60	\$ 0.03	\$ 0.42	\$ 1.05
Allegan	\$ 0.44	\$ -	\$ 3.00	\$ 3.44
Alpena	\$ 0.80	\$ -	\$ 2.46	\$ 3.26
Antrim	\$ 0.80	\$ -	\$ -	\$ 0.80
Arenac	\$ 0.64	\$ -	\$ 0.32	\$ 0.96
Baraga	\$ -	\$ -	\$ -	\$ -
Barry	\$ 0.24	\$ -	\$ -	\$ 0.24
Bay	\$ 0.33	\$ -	\$ -	\$ 0.33
Benzie	\$ 0.31	\$ -	\$ 3.00	\$ 3.31
Berrien	\$ -	\$ -	\$ 0.42	\$ 0.42
Branch	\$ 0.80	\$ -	\$ 0.42	\$ 1.22
Calhoun	\$ 0.29	\$ -	\$ 0.60	\$ 0.89
Cass	\$ 0.66	\$ -	\$ 1.39	\$ 2.05
Charlevoix	\$ 0.35	\$ -	\$ 0.61	\$ 0.96
Cheboygan	\$ 0.35	\$ -	\$ 0.61	\$ 0.96
Chippewa	\$ 0.58	\$ 0.04	\$ 1.50	\$ 2.12
Clare	\$ 0.80	\$ -	\$ 0.47	\$ 1.27
Clinton	\$ 0.67	\$ -	\$ 2.25	\$ 2.92
Crawford	\$ 0.80	\$ -	\$ 2.35	\$ 3.15
Delta	\$ 0.57	\$ 0.06	\$ 0.80	\$ 1.43
Dickinson	\$ 0.80	\$ 0.06	\$ 0.68	\$ 1.54
Eaton	\$ 0.23	\$ -	\$ -	\$ 0.23
Emmet	\$ 0.35	\$ -	\$ 0.61	\$ 0.96
Genesee	\$ 0.24	\$ -	\$ 1.24	\$ 1.48
Gladwin	\$ 0.19	\$ -	\$ 0.51	\$ 0.70
Gogebic	\$ 0.48	\$ 0.05	\$ 1.30	\$ 1.83
Grand Traverse	\$ 0.34	\$ -	\$ 1.85	\$ 2.19
Gratiot	\$ 0.65	\$ -	\$ 2.89	\$ 3.54
Hillsdale	\$ 0.80	\$ -	\$ 2.42	\$ 3.22
Houghton	\$ 0.58	\$ 0.06	\$ 1.10	\$ 1.74
Huron	\$ 0.36	\$ -	\$ 2.20	\$ 2.56
Ingham	\$ 0.23	\$ -	\$ 0.42	\$ 0.65
Ionia	\$ 0.33	\$ -	\$ 2.30	\$ 2.63
Iosco	\$ 0.43	\$ -	\$ 2.10	\$ 2.53
Iron	\$ 0.55	\$ 0.04	\$ 2.70	\$ 3.29
Isabella	\$ 0.80	\$ -	\$ 1.50	\$ 2.30
Jackson	\$ 0.29	\$ -	\$ 0.44	\$ 0.73
Kalamazoo	\$ 0.25	\$ -	\$ 0.42	\$ 0.67
Kalkaska	\$ 0.57	\$ -	\$ 2.52	\$ 3.09
Kent	\$ 0.19	\$ -	\$ 0.45	\$ 0.64
Keweenaw	\$ -	\$ -	\$ -	\$ -

County	Technical Charge: Recurring*	Technical Charge: Nonrecurring*	County Charge**	Total
Lake	\$ 0.35	\$ -	\$ -	\$ 0.35
Lapeer	\$ 0.20	\$ -	\$ 1.55	\$ 1.75
Leelanau	\$ 0.45	\$ -	\$ -	\$ 0.45
Lenawee	\$ 0.54	\$ -	\$ 1.18	\$ 1.72
Livingston	\$ 0.22	\$ -	\$ 1.85	\$ 2.07
Luce	\$ 0.48	\$ 0.04	\$ 0.99	\$ 1.51
Mackinac	\$ 0.52	\$ 0.03	\$ 1.48	\$ 2.03
Macomb	\$ 0.23	\$ -	\$ -	\$ 0.23
Manistee	\$ 0.45	\$ -	\$ -	\$ 0.45
Marquette	\$ 0.74	\$ 0.07	\$ -	\$ 0.81
Mason	\$ 0.60	\$ -	\$ 2.09	\$ 2.69
Mecosta	\$ 0.43	\$ -	\$ 2.25	\$ 2.68
Menominee	\$ 0.69	\$ 0.05	\$ 2.20	\$ 2.94
Midland	\$ 0.42	\$ -	\$ -	\$ 0.42
Missaukee	\$ 0.73	\$ -	\$ -	\$ 0.73
Monroe	\$ 0.37	\$ -	\$ 0.42	\$ 0.79
Montcalm	\$ 0.80	\$ -	\$ 2.85	\$ 3.65
Montmorency	\$ 0.70	\$ -	\$ 1.47	\$ 2.17
Muskegon	\$ 0.46	\$ -	\$ 0.34	\$ 0.80
Newaygo	\$ 0.69	\$ -	\$ 1.95	\$ 2.64
Oakland	\$ 0.22	\$ -	\$ 0.28	\$ 0.50
Oceana	\$ 0.60	\$ -	\$ 2.09	\$ 2.69
Ogemaw	\$ 0.45	\$ -	\$ 1.38	\$ 1.83
Ontonagon	\$ 0.65	\$ 0.01	\$ 0.51	\$ 1.17
Osceola	\$ 0.43	\$ -	\$ 2.25	\$ 2.68
Oscoda	\$ 0.80	\$ -	\$ 0.45	\$ 1.25
Otsego	\$ 0.80	\$ -	\$ 1.72	\$ 2.52
Ottawa	\$ 0.30	\$ -	\$ -	\$ 0.30
Presque Isle	\$ 0.80	\$ -	\$ 0.42	\$ 1.22
Roscommon	\$ 0.80	\$ -	\$ -	\$ 0.80
Saginaw	\$ 0.32	\$ -	\$ 2.65	\$ 2.97
Sanilac	\$ 0.26	\$ -	\$ 0.44	\$ 0.70
Schoolcraft	\$ 0.66	\$ 0.02	\$ 0.40	\$ 1.08
Shiawassee	\$ 0.72	\$ -	\$ 1.22	\$ 1.94
St. Clair	\$ 0.18	\$ -	\$ 0.60	\$ 0.78
St. Joseph	\$ 0.52	\$ -	\$ -	\$ 0.52
Tuscola	\$ 0.28	\$ -	\$ 2.03	\$ 2.31
Van Buren	\$ 0.50	\$ -	\$ 1.92	\$ 2.42
Washtenaw	\$ 0.25	\$ -	\$ 0.43	\$ 0.68
Wayne:				
Detroit Emergency	\$ 0.28	\$ -	\$ 0.42	\$ 0.70
Downriver	\$ 0.18	\$ -	\$ 0.42	\$ 0.60
Wayne, Conf. East	\$ 0.17	\$ -	\$ 0.42	\$ 0.59
Wayne, Conf. West	\$ 0.19	\$ -	\$ 0.42	\$ 0.61
Wexford	\$ 0.43	\$ -	\$ 0.42	\$ 0.85

Michigan Public Service Commission Order U-15552, of April 16, 2009, extends the \$0.19.

Michigan 911 charge to also be included on customer bills and remitted to Michigan Department of Treasury.

*The Technical Charge is calculated by a third party accounting firm.

**The County Charges are reported by the counties.

Distribution of Emergency 911 Funds to Counties

Equal and Per Capita

Includes payments: January – October 2014

Appendix 3

County	Net Payment	County	Net Payment
Alcona	\$126,525	Lake	\$127,360
Alger	124,647	Lapeer	234,906
Allegan	267,247	Leelanau	141,604
Alpena	152,657	Lenawee	251,116
Antrim	144,227	Livingston	364,678
Arenac	133,468	Luce	120,485
Baraga	123,609	Mackinac	126,764
Barry	194,082	Macomb	1,289,156
Bay	262,153	Manistee	145,842
Benzie	135,746	Marquette	205,153
Berrien	330,846	Mason	151,405
Branch	174,577	Mecosta	171,146
Calhoun	301,898	Menominee	144,856
Cass	184,444	Midland	228,336
Charlevoix	147,545	Missaukee	131,997
Cheboygan	147,830	Monroe	324,133
Chippewa	165,154	Montcalm	199,921
Clare	154,515	Montmorency	124,876
Clinton	216,786	Muskegon	352,381
Crawford	130,911	Newaygo	179,075
Delta	163,120	Oakland	1,795,347
Dickinson	147,851	Oceana	148,415
Eaton	262,136	Ogemaw	141,592
Emmet	156,993	Ontonagon	120,694
Genesee	707,602	Osceola	144,154
Gladwin	147,185	Oscoda	123,300
Gogebic	134,208	Otsego	145,044
Grand Traverse	233,040	Ottawa	480,703
Gratiot	170,695	Presque Isle	129,934
Hillsdale	176,594	Roscommon	145,443
Houghton	162,502	Saginaw	391,575
Huron	157,587	St. Clair	339,568
Ingham	504,648	St. Joseph	197,054
Ionia	200,711	Sanilac	171,588
Iosco	147,458	Schoolcraft	123,083
Iron	127,751	Shiawassee	210,155
Isabella	209,683	Tuscola	189,257
Jackson	335,657	Van Buren	218,013
Kalamazoo	461,836	Washtenaw	594,147
Kalkaska	135,224	Wayne	2,661,383
Kent	955,290	Wexford	157,051
Keweenaw	114,218	TOTAL	\$23,073,546

State 911 Committee 2014 Membership

Appendix 4

Association of Public Safety Communications Officials

Mr. Rich Feole

Commercial Mobile Radio Service

Ms. Yvette Collins

Department of Licensing and Regulatory Affairs

Ms. Alesha Gensler

Department of State Police

Mr. Shawn Sible

Deputy Sheriffs' Association

Lt. Frank Baker

Fraternal Order of Police

Mr. Dave Hiller

Governor's Appointee, Public Member

Mr. Don Welch

House Appointee, Public Member

Mr. Jeff Troyer

Michigan Association of Ambulance Services

Mr. Dale Berry

Michigan Association of Chiefs of Police

Chief Kay Hoffman

Michigan Association of Counties

Mr. Jon Campbell

Michigan Association of Fire Chiefs

Chief Paul Trinka

Michigan Communications Directors Association

Mr. Tim Smith, Vice-Chair

Michigan Professional Firefighters Union

Mr. Mark Docherty

Michigan Public Service Commission

Ms. Wendy Thelen

Michigan Sheriffs' Association

Sheriff Dale Gribler, Chair

Michigan State Police Troopers Association

Mr. Adam Starkweather

National Emergency Number Association

Ms. Dee Ann Summersett

Senate Appointee, Public Member

Mr. Lloyd Fayling

Telecommunications Association of Michigan

Ms. Jennifer Greenburg

UP Emergency Medical Services Corporation

Mr. James Loeper

County Call Information Detail

Appendix 5

County	Wireline 911 Calls Received	Wireless 911 Calls Received	VoIP 911 Calls Received	Text-to-911 Received	PSAP Non- Emergency/ Admin Calls	Incidents Dispatched
Alcona	1,244	2,359	25	0	14,200	4,673
Alger	3,656	1,942	0	0	10,482	2,538
Allegan				0	74662	51729
Alpena	18,000	24,000	15,000	0	100,000	21,630
Antrim	1,963	6,391	31	0	4,922	23,160
Arenac	9,931			0	50,000	14,301
Baraga	890	1,735	6	0	112,935	6,624
Barry	10,835	5,668	226	0	47,430	36,819
Bay	32,461	57,449	1,808	0	57,067	86,781
Benzie	1,432	5,125	82	0	27,236	10,414
Berrien	13,715	101,313	7,637	0		140,877
Branch	56,298	53,942	12,000	0	96,286	57,963
Calhoun	20,995	109,943	6,491	0	136,911	163,246
Cass	2,627	18,303	0	0	140,668	38,136
CCE (Charlevoix, Cheboygan, Emmet)	25,609	48,703	1,184	0	69,623	129,761
Chippewa	4,406	16,387	178	0	44,621	26,447
Clare	9,776	7,061	6	0	22,547	39,390
Clinton	16,103	19,769		0	29,941	115,126
Crawford	1,046	1,799	3	0	3,826	7,371
Delta	3,468	7,874	135	0		25,737
Dickinson	1,732	5,392	254	0	36,100	15,834
Eaton	35,315	31,787	672	0	78,150	83,191
Genesee	267,515	391,978	46,424	0	123,547	498,717
Gladwin	9,074	3,243	0	0	81,261	15,012
Gogebic	4,899	1,061	67	0	94,210	13,313
Grand Traverse	10,394	34,432	433	0	121,343	59,473
Gratiot	3,381	13,135		0	63,658	47,692
Hillsdale	9,146	20,858	1,400	0	51,164	25,861
Houghton	3,801	9,335	81	0	112,935	24,469
Huron	12,278	9,353	391	0	57,217	31,331
Ingham	27,588	107,268		0	321,254	278,341
Ionia	5,378	15,743	209	0	71,692	31,394
Iosco	4,719	39,810	308	0	2,663	21,849
Iron	2,888	1,074	32	0	94,210	12,586
Isabella	22,442	23,622	281	0	230,000	63,871

County	Wireline 911 Calls Received	Wireless 911 Calls Received	VoIP 911 Calls Received	Text-to-911 Received	PSAP Non- Emergency/ Admin Calls	Incidents Dispatched
Jackson	27,647	97,872	8,960	0	219,096	132,334
Kalamazoo	29,081	151,808	4,033	0	406,031	483,822
Kalkaska	1,540	6,128	67	0	42,055	13,835
Kent	41,353	231,523	14,673	0	382,223	310,517
Keweenaw	172	698	6	0	112,935	1,426
Lake	3,557	2,488	69	39	24,199	11,195
Lapeer	5,635	21,576	315	74	51,198	72,462
Leelanau	2,532	7,681		0	32,011	12,333
Lenawee	7,422	24,889	2,181	0	133,171	85,390
Livingston	17,012	55,417	114	0	61,997	154,781
Luce	762	1,689	0	0	760	3,575
Mackinac	2,085	4,374	0	0	7,187	9,795
Macomb	119,623	347,976	19,358	0	434,597	479,175
Manistee	45,000	25,000	40	0	55,000	26,678
Marquette	7,687	18,112	264	0	65,215	45,798
Mason Oceana	8,700	23,402	427	0	16,128	75,118
Meceola (Mecosta-Osceola)	31,913			0	106,161	54,874
Menominee	1,631	6,325	948	0	27,179	11,301
Midland	15,792	33,401	1,457	0	39,244	64,270
Missaukee	1,189	2,578	10	0		4,673
Monroe	10,445	70,741	2,093	0		99,046
Montcalm	4,571	15,453	99	0	134,988	55,269
Montmorency	1,315	2,727	29	0	8	4,079
Muskegon	26,207	124,957	13,652	0		285,912
Newaygo	21,168	39,923	0	0	100,036	26,392
Oakland	106,088	533,149	37,627	0	1,339,018	919,410
Ogemaw	3,879	6,635	165	0	50,000	14,403
Ontonagon	627	888	14	0	112,935	4,158
Oscoda	864	2,285	22	0	3,171	2,672
Otsego	2,852	8,981	117	0	11,185	17,582
Ottawa	7,990	96,739	3,355	0	121,996	115,131
Presque Isle						
Roscommon	4,639	5,889	515	0	74,200	32,707

County	Wireline 911 Calls Received	Wireless 911 Calls Received	VoIP 911 Calls Received	Text-to-911 Received	PSAP Non- Emergency/ Admin Calls	Incidents Dispatched
Saginaw	39,355	110,927	18,280	0	174,218	342,780
Sanilac	2,610	12,021	374	0	94,415	39,383
Schoolcraft	960	2,007	11	0	112,935	6,391
Shiawasee				0		55,680
St. Clair	22,525	39,910	4,724	0	179,978	129,316
St. Joseph	13,795	33,509	219	0	97,728	52,850
Tuscola	22,225	15,201	517	0	36,584	39,283
Van Buren	7,504	39,546	1,644	0	160,540	49,062
Washtenaw	25,686	199,393	24,218	0	280,956	293,225
Wayne - Conf. of Western Wayne	69,039	371,713	18,542	0		459,294
Wayne - Conf. of Eastern Wayne						
Wayne - Downriver Mutual Aid	21,429	152,032	11,196	0		249,138
Wayne - Detroit Service District						
Wexford	3,468	14,159	305	0	51,472	25,085
TOTAL	1,444,579	4,159,576	286,004	113	7,935,511	7,597,257

“More than 149 million – that’s the total number of emergency calls received in 2013 by the 39 states that shared data through the National 911 Profile Database...While the report doesn’t extrapolate the total number of calls across the states and territories which cannot or did not report data for 2013, we can estimate that this means more than 238 million calls are placed for emergency services across the nation” (Urgent Communications).

To view the complete article, please visit the following link: <http://urgentcomm.com/blog/national-911-progress-report-provides-unprecedented-insight-state-911-operational-and-financial?page=1>

Overview of Emergency 911 Fund
 As of December 31, 2014

Appendix 6

Fund	Receipts	Disbursements	Balance
CMRS	\$94,585,895.33	\$89,964,404.15	\$4,621,491.18
County	107,594,613.19	105,118,250.00	2,476,363.19
County/Pop	161,414,324.38	157,696,800.00	3,717,524.38
Training	18,284,360.24	17,402,432.80	881,927.44
MSP	1,956,624.43	1,956,624.43	0.00
MSP 911/ETSC Admin	6,012,897.90	5,999,555.11	13,342.79
MSP 911/Disp. Ctr.	3,589,282.82	3,575,869.44	13,413.38
Treasury Admin (1)	296,559.10	323,615.71	(27,056.61)
Totals	\$393,734,557.39	\$382,037,551.64	\$11,697,005.75

(1) MCL 484.1408(6) authorizes the Michigan Department of Treasury up to \$150,000 to fund a portion of the costs to administer the 911 Act. Starting in FY 2012, the Treasury Administration Fund revenue is transferred from the CMRS Fund. The negative fund balance is due to the timing of distributing revenue to the fund.

Text-to-911 Deployment Guidelines

Appendix 7

Call if you can, text if you can't Guidelines for Interim Text-to-911 Deployment

What is SMS and interim text-to-911?

Full NG911 deployment is still in development and will likely be for several years into the future. The interim solution was developed as a way to allow 911 to be activated via SMS text messaging prior to full NG911 development. The interim text-to-911 solution utilizes the most commonly available texting technology, carrier native Short Message Service (SMS) texting. Carrier native SMS is that feature provided by the carrier, and **not** third party texting or messaging applications (apps) that may be installed on the mobile device. The SMS interim text-to-911 service provides support for wireless subscribers to send 911 SMS text messages to PSAPs and for subscribers to receive text replies from PSAPs. Wireless customers with SMS service are able to send emergency SMS messages to a PSAP by using the single code "911" as the destination address of the SMS message.

Why is interim text-to-911 needed?

According to the National Organization on Disability (2007), the United States has a total population of more than 300 million. There are an estimated 54 million individuals with a disability, of which over 37 million individuals are deaf, hard of hearing, or have a speech disability.

There are also countless wireless users who are not deaf or hard of hearing who use text as a routine means of communication. Additionally, there may be circumstances, such as domestic violence or in-progress incidents, in which a voice call is not practical or dangerous to make.

Is text-to-911 service mandatory?

Not at this time. However, under a consent agreement with APCO, NENA, the FCC, and the four major wireless carriers, the FCC is requiring that the carriers provide it within six months of a PSAP request. Based on the current political atmosphere and discussions, it is likely that a mechanism such as industry best practices or a governmental mandate (for example DOJ or the FCC) will likely require that PSAPs provide this service in the future, much like TTY access.

How does the interim SMS text-to-911 work?

The interim solution will have three interface options; all three are explained in further detail later in this document. Two of the three options allow Public Safety entities that have not begun deploying IP-based 911 services the capability to receive text messages without making substantial changes to their existing equipment.

What will happen in areas that do not implement text-to-911?

All wireless carriers are required to send a "bounce back" message to anyone attempting to use SMS text-to-911 prior to local service availability or when the service may be otherwise unavailable.

What is a "bounce back" message?

If text to 911 is not available, the subscriber will receive a text message back explaining that SMS text-to-911 service is not available and to contact 911 by another method, such as a voice call or relay service.

What are other causes of a “bounce back” message?

There are a number of reasons including:

- The 911 message was not sent as a SMS message.
- The PSAP has lost connectivity to its text-to-911 service.
- The PSAP text-to-911 service is in overload mode.

Will the interim SMS text-to-911 work in roaming mode?

No, the interim SMS text-to-911 solution will not be supported when a subscriber is roaming. This is due to SMS service limitations, which will cause the customer to receive a “bounce back” message. In the context of SMS text-to-911, roaming means the subscriber is receiving wireless service from any carrier other than his/her home carrier regardless of the subscriber’s current location.

How does my PSAP begin to implement text-to-911?

TCCs are communications providers that will move text-to-911 sessions to PSAPs using one of the three interim solutions. Nationally, there is a small network of TCCs to interface between carrier-originated wireless 911 text users and the PSAP environment. The TCCs use some of the functions of core NG911 system design, with specialized functionality to fit the SMS text needs. The TCCs are in the process of establishing connectivity between each other to transport text messages so they are able to interoperate with each other. This will allow PSAPs to connect to multiple carriers through a single TCC.

Each PSAP will need to choose the solution (not necessarily the solution vendor Text Control Center [TCC]) they plan to receive text-to-911. The PSAP will notify the first wireless carrier they intend to implement text-to-911 with. Each wireless carrier works with a particular TCC by agreement, and all wireless carriers and TCC options will interface. In other words, a PSAP does not request service through the TCC, but which TCC the PSAP uses is determined by which wireless carrier they initiate text-to-911 services with first. It is suggested that you contact your wireless carriers first and then work with that carrier’s TCC for your PSAP.

What are my PSAP’s text-to-911 delivery options?

There are three text-to-911 delivery options and there are certain prerequisites prior to requesting SMS through wireless carriers. Those options and prerequisites are as follows:

1. ESInet/IP Network Service Interface

This option requires that the PSAP has IP-capable equipment and IP connectivity to the carrier’s TCC provider. The text message will be delivered into the 911 PSAP CPE interface. This solution should be compatible with a full NG911 (i3 compliant) solution. The Automatic Location Identification (ALI) will display the number associated with the text and information similar to a Phase 1 wireless caller today. The prerequisites are:

- PSAPs install dedicated, redundant IP circuits to the Text Control Center at their own expense or have an ESInet in place.
- PSAP customer premise equipment (CPE) must be capable of receiving IP messages on standard (NENA i3 and ATIS J-STD-110 defined) IP interfaces (SIP/MSRP).
- Call taker workstations must have integrated text handling software.
- PSAP is responsible for CPE equipment (upgrades/maintenance/technical support), firewall configurations, and text call taker training.
- PSAP must provide point of contact for CPE and IP/ESInet customer support.

2. Web-based portal

This option requires that a PSAP have IP-based access, either through a private IP network or over the public Internet. A separate web portal would be opened at the beginning of the shift and would need to be monitored for incoming text messages.

This solution currently requires a separate monitor for the web portal; however, some equipment manufacturers are working to incorporate the portal into the 911 CPE display. The ALI will display the number associated with the text and information similar to a Phase 1 wireless caller today. The prerequisites are:

- PSAP must have public Internet or private IP network connectivity into workstations readily available.
- PSAP workstations must have web browser capability (IE8 or higher, Chrome, or Firefox).
- PSAP is responsible for CPE equipment (upgrade/maintenance/technical support) and Firewall configuration (if applicable).
- Text is not delivered to 911 directly; it is delivered through a web server via the Internet or a private IP network.
- MIS/RMS and PSAP logging/recording functions are not active during the text session, and data is obtained from the TCC separately.
- PSAP must provide point of contact to the TCC for customer support.
- PSAP needs to be logged in to the Web Portal in order to receive text messages. It will be important that the telecommunicators know how the portals work and the PSAP establish internal procedures for monitoring connectivity.

3. Text-to-TTY/TDD

This option allows the PSAP to receive incoming text messages via E911 and their current TTY/TDD system. The text would display on the 911 equipment similar to a TTY call. The ALI display will show the caller's text number in the location where the wireless caller's Call Back Number is displayed on voice calls, and the x/y coordinates of the cell site or the sector centroid associated with the texting device.

The text messages would be delivered via the existing 911 trunks, which would mean that once a text came in via this method, the 911 trunk over which it arrived would be tied up and unable to accept another voice call or text session until the PSAP ends the session. Text sessions will likely tie up trunks for a longer period of time than a normal 911 call. The prerequisites are:

- SMS converted to TTY (Baudot code) before sent to Public Safety 911 network.
- TTY messages sent to E911 Selective Router for delivery to the PSAP TTY call station.
- PSAP should bid ALI with ESRK/pANI for coarse location (e.g. cell site and sector centroid) related to the subscriber's call.
- PSAP is responsible for CPE equipment (upgrades/maintenance/technical support) and call taker training, if required.

- PSAP must provide point of contact for CPE customer support.
- SMS text as TTY messages are delivered directly to the PSAP, and Management Information System (MIS) and recording capability are included if TTY functions are integrated with CPE.
- 'Garbling' with SMS sent as TTY is expected to be no different than TTY at a PSAP currently.
- Proper setup, prior to deployment, is required in the interconnecting networks and elements, and at the PSAP to minimize Bit Error Rate.
- Observed PSAP considerations to date include: Local TTY terminal modem settings, volume settings, PBX configurations, CPE configurations, etc.

Is one of the three methods preferred?

- 1) If your PSAP has the ability to receive text-to-911 through the direct IP method, that would be the first recommended option.
- 2) If your PSAP cannot process text-to-911 through an IP-based system, the next recommended choice is web portal.
- 3) If your PSAP cannot process text-to-911 through an IP-based system or a web-based system, then the next recommendation is text-to-TTY.

How do I know if my PSAP has met the requisites for connectivity for text-to-911?

There is a standard checklist that goes into detail on the SNC web site. The link is:

http://www.michigan.gov/documents/msp/NENA_Carrier_Readiness_SMS_911_Questionnaire_IPG_Appendix_C_458142_7.pdf

A list specific to each provider can be found at the SNC web site: www.michigan.gov/snc

How do I request text-to-911?

After it has been decided which option will be used for your system's deployment, contact the wireless carrier to enable your PSAP to become text-to-911 ready. Next, send a letter to each wireless carrier in your area to request text-to-911. At this time, the four major carriers: Sprint, T-Mobile, Verizon, and AT&T, are under the consent agreement with the FCC to provide text-to-911.

If there are other providers in your service area, check to find out if text-to-911 is provided. The PSAP would then send requests to each carrier that service is being requested from. Consider doing this via registered mail in order to establish a receipt date as a basis for the implementation process.

Do I have to request all the carriers in my area at the same time?

No, you may time your requests based on your individual PSAP's and community's needs. Remember, the TCC your PSAP will be participating with is based on the first carrier implemented with both the IP and Web based interim solutions.

Will we receive location information on text-to-911 calls?

Minimally, your PSAP will receive Phase I information. Consult with the individual wireless carriers and TCCs about additional location information that may be available. As with all 911 calls, information verification will be important in text-to-911.

There are multiple PSAPs in my jurisdiction. Can we divide text-to-911 geographically?

While it is currently a PSAP's choice whether to accept text-to-911 calls or not, NENA guidelines recommend if there are multiple PSAPs within a service district (in Michigan that would be **by county or Wayne County Service District**) that either only one PSAP (or a several select few) process **ALL** the text-to-911 calls or all the PSAPs in the county process **ALL** text to 911. Text-to-911 should not be deployed on a sporadic basis across a county.

The location-based routing of SMS text-to-911 sessions parallels that of wireless Phase I, that is, based on cell site and sector centroid. Because cell sector coverage does not always follow PSAP jurisdictional or county boundaries, SMS text-to-911 cannot be limited to these geographic-oriented boundaries. Consumers who wish to use SMS text-to-911 must have some clear, understandable idea of where they can and cannot utilize the service. However, please bear in mind, a 911 text may not route in the same manner as regular wireless 911 calls. You should consult with each wireless provider during deployment in regard to specific routing details.

For various reasons, it is believed that county-oriented service is preferable at the onset of deployment - either to a single PSAP in multiple PSAP counties, or to all PSAPs in a county. PSAP-by-PSAP implementation within a county can be confusing to the consumer due to lack of service area clarity. It is the recommendation of the SNC's Emerging Technology Subcommittee that deployments be done on a county-wide basis. If a single PSAP serves multiple counties, then all counties served by that PSAP should be deployed.

How do I tell my citizens they can text to 911?

Each 911 system should plan communication/public education of their community in a manner that meets its deployment needs and schedule.

1. Some may opt to deploy one carrier at a time and advise the public of each deployment.
2. Some may not release information until all four major carriers are deployed in their service area.
3. Some may wait for a period of time after deployment and delay making the announcement for internal or policy reasons.

No matter how or when you decide to educate your community's public, public education is **very** important in deploying text-to-911 for a number of reasons, including:

1. It does not provide location service in the same level that E911 does.
2. It is not real time.
3. It should only be used when a voice call cannot be made.
4. Only the carriers that have been deployed in the PSAP's service area will work for the area the PSAP covers, which makes it very important for citizens to know the limitations of their text capabilities.
5. A person initiating text-to-911 in an area that has not deployed the service will receive a bounce back message telling them to make a voice call to 911.
6. It is important for people who use smart phones to recognize that text-to-911 will not work on messaging applications that may "look" like SMS texting, but are actually "over the top" applications using features that are not SMS texting, such as iPhone messaging.
7. Because the features and applications can vary significantly between devices, consumers should be made aware that they are responsible for knowing what the limitations and functions of their individual devices are.

PSAP directors and managers will need to work closely with their neighboring PSAPs to establish systems for relaying out-of-jurisdiction information that may be received via text-to- 911.

Are there additional resources available to me to help me with text-to-911?

National NENA has made resources available to PSAPs to assist them in educating citizens about text-to-911: <http://www.nena.org/?page=textresources>

The FCC also has resources and information on text-to-911 education: <https://www.fcc.gov/text-to-911>

The National 911 Office at NHTSA has a number of text-to-911 resources:
<http://www.911.gov/911-issues/texting911.html>

Will my PSAP be able to transfer text-to-911 calls to another PSAP?

At this time, no. However, changing technology may allow for this function in the future. It is important to work with the PSAPs in your area to establish protocols for relaying text-to-911 information.

Can a PSAP initiate an outgoing text through its portal to text a 911 texter back?

Because functions may vary from provider to provider, check with the CMRS carriers and their TCCs during the course of your deployment.

How does text-to-911 present itself at the PSAP?

Text-to-911 will come into the PSAP as a wireless Phase 1 call. Phase 2 information will not be available, so it will be crucial for 911 operators to ascertain accurate location information. A more precise location may be available, but it is wireless carrier/vendor implementation specific. Therefore you will need to discuss this with the wireless carrier and TCC prior to implementation.

Will my PSAP receive other data such as pictures with text messages?

No, the current solution to receive text-to-911 is an interim solution only and pictures and other data cannot be transmitted to the PSAP. The interim solution will only process text-to-911 messages via carrier native SMS. This means that photos, videos, or multiple recipients for a text message are not supported as those cause the message to be sent as a Multimedia Messaging Service (MMS) message and the current solutions do not support MMS. If a MMS message is sent to 911, the sender will receive a bounce back message directing them to place a voice call to 911.

What if the caller (texter) uses texting lingo that the 911 operator doesn't understand?

Each PSAP will need to put policies and procedures in place that fit individual circumstances and operating processes. One option may be to have a standard introduction message response requesting plain language be used to all extents possible.

What if we need to do EMD/pre-arrival instructions via text?

Because the circumstances of any text-to-911 will vary and the use of EMD/pre-arrival instructions may differ accordingly, each PSAP will need to determine how to manage text-to-911 EMD within its circumstances. It is recommended that you consult your EMD provider, your Medical Control Board, as well as your risk manager, as part of implementing your local policy on EMD/pre-arrival application and protocols. Some EMD providers are currently looking at text versions for their EMD.

Will text-to-911 work on a Lifeline phone?

It depends on the services provided on the phone. If there is no text service on the phone, there is no text-to-911. This applies to all wireless phones.

Can a non-initialized cell phone text-to-911?

No, if the phone is inactive and does not have a data or texting plan, it cannot text-to-911.

What should be done if someone abuses text-to-911?

As with voice callers, once the perpetrator has been identified, refer the issue to your jurisdiction's prosecutor for review under MCL 484.1605.

Can text-to-911 sessions be recorded?

At this time your audio logging recorder system cannot record text-to-911. If you choose to use the direct IP-based or web portal methods of connectivity, the TCCs, Intrado, and TCS will store the call/transaction dialog/sessions and can be requested through the TCC. The TCCs also time and date stamp the session.

How long will the session dialogs be held by the TCCs?

Currently, there are no restrictions on the length of time the text will be kept. At this point, the amount of data is very small. In the future, as the TCCs continue this practice and the data storage space required becomes larger, the TCCs may decide to limit the storage time.

Each TCC may have different systems allowing each PSAP to search, view, download, and store to local storage. Check with the TCCs during your deployment process for details.

What is the procedure for requesting a text-to-911 session dialog?

Contact the TCC providing service to your PSAP.

Will there be fees or charges for making the request?

There are no known fees to the PSAPs at this time.

Approximately how long will it take to get a text-to-911 session dialog?

Depending on urgency, around 24-48 hours.

Is my PSAP going to see a significant increase in workload with text-to-911?

The data is not clear yet. Call volume impacts, based on current trials and deployments of SMS text-to-911, have shown that concerns about PSAPs being overwhelmed by texts-to-911 have not been substantiated. As of January 2014, there is no indication that text-to-911 causes significant numbers of text messaging for emergencies. In fact, the opposite is true. Reports from the state of Vermont and North Carolina communities around Raleigh-Durham demonstrate that text-to-911 is not a burden to the PSAP operations.

Reports about these trials and deployments of text-to-911 are available at:

North Carolina: <http://apps.fcc.gov/ecfs/document/view?id=7021985670>

Vermont: <http://apps.fcc.gov/ecfs/document/view?id=7520957727>

Will my PSAP be exposed to liability if we do or don't accept text-to-911?

Prior to deciding to deploy text-to-911, the PSAP and the county 911 coordinator should thoroughly explain and discuss text-to-911 with their jurisdiction's legal counsel and risk managers in regards to liability issues. The pertinent section on liability in the 911 statute may be found at MCL 484.1604.

Is there additional funding available for providing text-to-911 to my PSAP's service area?

Currently in Michigan our 911 fees and surcharges, both state and local, already apply to any device that can access 911. Texts are made on wireless devices that can access 911 and those devices are already paying both state and local 911 fees; there is no additional funding available for text-to-911. Fortunately, costs incurred that are directly related to deploying text-to-911 are allowable expenses of both state and local 911 revenues.

Additionally, other than training staff, public education, and possible software upgrades to existing equipment, costs should be low.

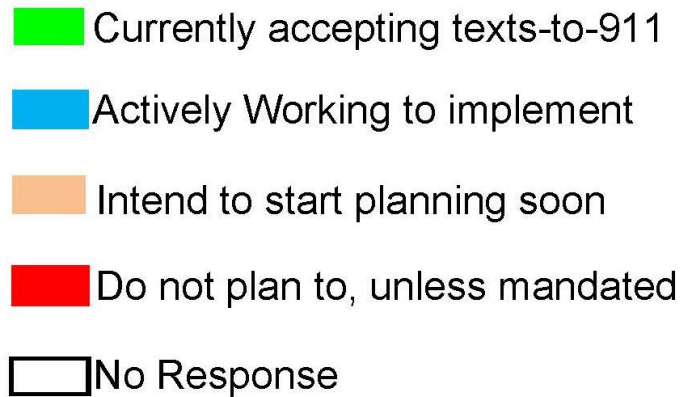
How do I find out what other counties in Michigan are doing in regard to text-to-911?

In the third quarter of 2014, there will be information posted on the SNC web site with information about text-to-911 deployments across the state. Your assistance in providing information about your text-to-911 deployments will be greatly appreciated.

Acknowledgements:

Resource materials from NENA National and the FCC were utilized throughout this document, their contribution and information is greatly appreciated.

Status of Text-to-911 in Michigan



Smart911 Basic Statewide Deployment FAQs

Appendix 9

Executive Summary

The State of Michigan will be deploying Smart911 Basic on a statewide basis in order to provide enhanced end-to-end 911 and Public Safety Services. Under a state appropriation facilitated by the Mental Health and Wellness Commission, the Smart911 Basic software will be made available to all PSAPs within the state. Smart911 Basic will allow Michigan to continue demonstrating leadership in both technology and Public Safety while helping us create a more connected community.

What is Smart911 Basic?

The State of Michigan's initial deployment will provide "Smart911 Basic" to all PSAPs across Michigan. Smart911 Basic will provide the baseline platform capabilities including:

- **Call-then-text:** Initiate text sessions with mobile callers. Text when callers are non-verbal, hang up, or when calls are dropped for greater response and reduced numbers of unresolved cases.
- **Call Notes:** Call notes allows 911 and first responders to append a note to any phone number that can then be made available on any subsequent call from that number.
- **Facility Data:** Facility Data allows 911 and administrators to view additional information about a "facility" rather than a person.
- **Panic Button Data:** Each PSAP will have the ability to receive additional data from Rave's Panic Button, which has been announced in some Smart911 supported areas already.
- **Optional Additional Data Platform:** All PSAPs will have access to the Standard Smart911 platform for the delivery of additional information as an "add-on" purchase. The Standard Smart911 is a platform that will allow for enhanced delivery of additional data with the 911 call. The platform has the ability to deliver information from a wide variety of data sources including citizens, mobile carriers, facilities (locations), Law Enforcement, Fire, and EMS to help them respond more quickly and effectively. In providing additional information, Smart911 has proven to enhance not only the 911 call taking process, but the end-to-end emergency response. Data can be easily pushed to responding units.

Why a statewide deployment for Michigan?

The Mental Health and Wellness Commission, State 911 Committee, the CLEAR Committee Chairman, first responders, and a variety of other advocates have identified a need to continually enhance our Public Safety capabilities. Smart911 has already proven to be successful not only here in Michigan, but in other states around the country. With Smart911 Basic deployed statewide, Michigan will continue to demonstrate our leadership position in enhancing the safety and security of our citizens while creating a more connected community. Most importantly, Smart911 can help save lives.

What are the roles and responsibilities in the Smart911 Basic deployment?

Smart911 is Software as a Service (SaaS) so it is a little different than most of the 911 technology deployments you may be familiar with. The deployment process is very simple and only requires the PSAP to provide:

- ❖ ANI/ALI Spill
- ❖ Network connectivity
- ❖ A single computer to run the Smart911 software. (A number of PSAPs in the state have either used existing computers in-house, or have virtualized the Smart911 computer).

What assistance will my PSAP receive in deployment of Smart911 Basic?

The state expects to complete the procurement process in early to mid-October with more formal announcements at upcoming events in the 911 community. In addition, Rave Mobile Safety and the

State 911 Office will host webinars for all PSAPs to provide the necessary details associated with the rollout process.

How do we deploy Smart911 Basic?

Rave Mobile Safety's deployment team will contact each PSAP directly to work with the PSAP to install Smart911 Basic remotely. Once the Smart911 computer, ANI/ALI, and network connectivity are in place, under normal circumstances the PSAP will be live in a matter of a day or two.

Who provides the training?

Rave Mobile Safety has a complete training program. It will include web-based training for call takers, dispatchers, first responders, SOP guides, and on-demand content such as videos.

Is support included?

Yes, 24/7/365 support is included with the service at no cost to the PSAPs. Smart911 can be contacted through a secure web portal or by phone at 1-888-605-7163.

Who is paying for Smart911 Basic?

Over the last two years, the Mental Health and Wellness Commission, and the State Budget Office have been working on building unanimous support for funding. The Mental Health and Wellness Commission made a recommendation to the Michigan Legislature to implement Smart911 statewide with an appropriation, which was approved for FY2015. Stakeholders in the 911 community and the CLEAR Committee Chairman have endorsed the statewide deployment of Smart911 Basic.

Who will pay for Smart911 Basic after the 2014/2015 deployment?

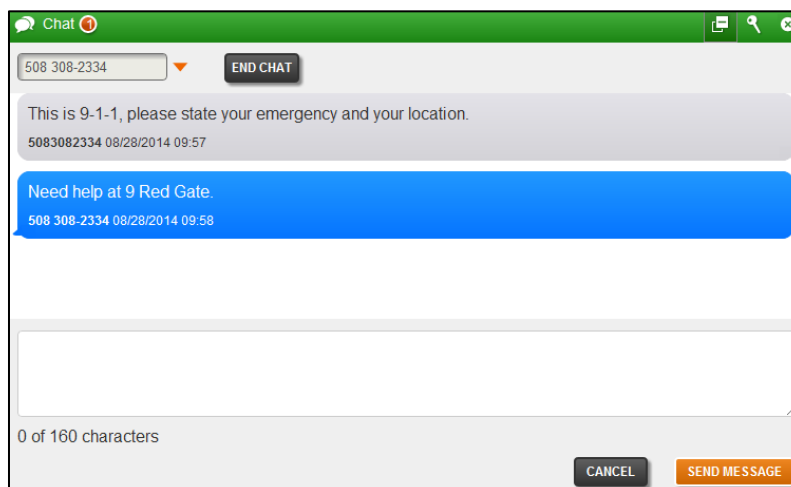
Currently this is a one-time appropriation. There is discussion and support among key stakeholders as to the ongoing funding for Smart911. If the funding is not appropriated in the future, the PSAPs will be under no obligation to provide funding at the local level and there will be no obligation to continue to provide Smart911 Basic at local expense. If the program is not funded after FY2015 and a PSAP wants to continue Smart911 Basic, the cost is \$1,125 per work station per year.

What marketing assistance is available to educate my citizens?

Rave Mobile Safety's community marketing and engagement teams will be actively involved in the creation in local, statewide, and national outreach campaigns.

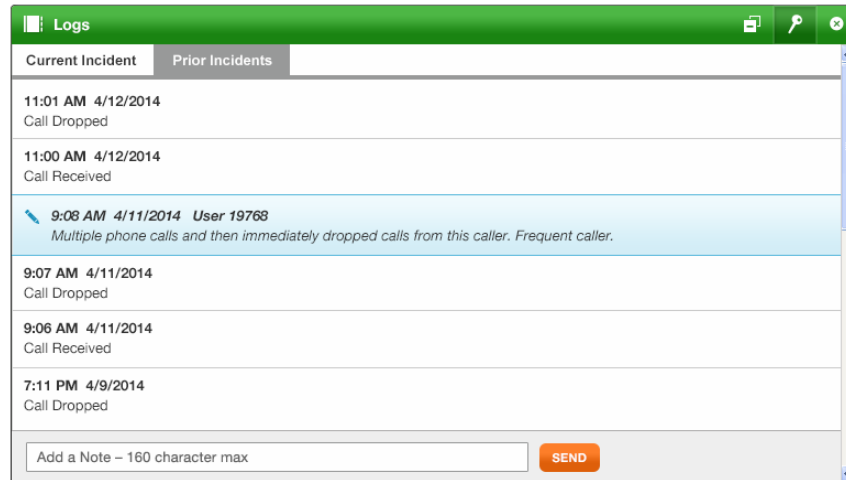
What benefit will Smart911 Basic bring to the PSAP?

- **Call-then-text:** The PSAP will be able to initiate text sessions with mobile callers who are non-verbal, deaf or hard of hearing, hang up, or when calls are dropped. This provides the opportunity for greater response and reduced numbers of unresolved cases. This feature does not require individuals to create a profile and it works across all wireless phones.



The screenshot shows a web-based chat interface. At the top, there's a green header bar with a 'Chat' label and a red status icon. Below the header, a text input field contains the phone number '508 308-2334', and next to it is a black button labeled 'END CHAT'. The chat history shows two messages: a grey bubble from '5083082334' at '08/28/2014 09:57' saying 'This is 9-1-1, please state your emergency and your location.', and a blue bubble from '508 308-2334' at '08/28/2014 09:58' saying 'Need help at 9 Red Gate.'. Below the messages is a large white text input area. At the bottom, there's a character count '0 of 160 characters' and two buttons: a grey 'CANCEL' button and an orange 'SEND MESSAGE' button.

- **Call Notes:** Call notes allows 911 and first responders to append a note to any phone number that can then be made available on any subsequent call from that number. Typically used for frequent callers, victims of domestic violence, those who are at-risk, or pet information. Call notes provides additional information to 911 and first responders.

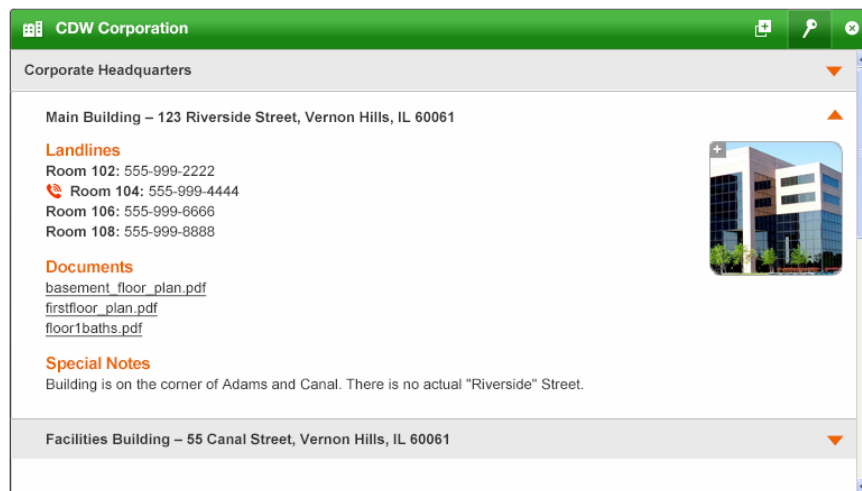


The screenshot shows a web application window titled "Logs". It has two tabs: "Current Incident" and "Prior Incidents". The "Current Incident" tab is active, displaying a list of call logs. The logs are as follows:

Time	Date	Event
11:01 AM	4/12/2014	Call Dropped
11:00 AM	4/12/2014	Call Received
9:08 AM	4/11/2014	User 19768 <i>Multiple phone calls and then immediately dropped calls from this caller. Frequent caller.</i>
9:07 AM	4/11/2014	Call Dropped
9:06 AM	4/11/2014	Call Received
7:11 PM	4/9/2014	Call Dropped

At the bottom of the window, there is a text input field labeled "Add a Note - 160 character max" and a "SEND" button.

- **Facility Data:** Facility Data allows 911 and administrators to view additional information about a "facility" rather than a person. Schools, corporations, and work sites with hazardous material can provide additional information such as building plans, security or school resource contact details, and other information about that facility that can aid first responders.



The screenshot shows a web application window titled "CDW Corporation". It displays information about the "Corporate Headquarters".

Corporate Headquarters

Main Building – 123 Riverside Street, Vernon Hills, IL 60061

Landlines

- Room 102: 555-999-2222
- Room 104: 555-999-4444
- Room 106: 555-999-6666
- Room 108: 555-999-8888

Documents

- [basement_floor_plan.pdf](#)
- [firstfloor_plan.pdf](#)
- [floor1baths.pdf](#)

Special Notes

Building is on the corner of Adams and Canal. There is no actual "Riverside" Street.

Facilities Building – 55 Canal Street, Vernon Hills, IL 60061

- **Panic Button Data:** Each PSAP will have the ability to receive additional data from Rave Mobile Safety's Panic Button in the areas where institutions opt to participate in the Panic Button product.



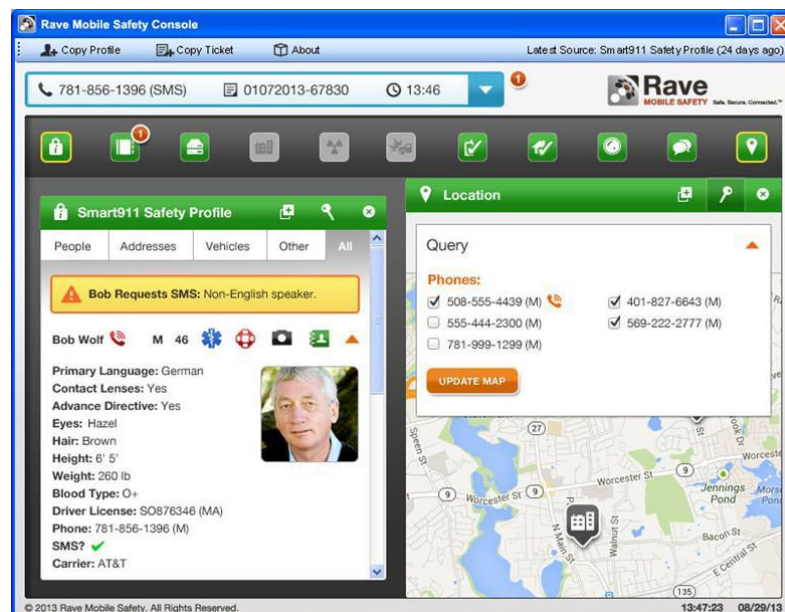
- **Optional Additional Data Platform:** While it is not a feature of the Smart911 Basic product, PSAPs will have access to the Standard Smart911 platform for the delivery of additional information including the citizen profile if they purchase the Standard version upgrade (below).

Will PSAPs be able to upgrade to the Smart911 Standard version?

While an upgrade to the Smart911 Standard version is not required, PSAPs will have the ability to work independently with Rave Mobile Safety to upgrade to the Standard version at any time at a 25% discount per active workstation (\$3,375) due to the statewide implementation of Smart911 Basic. Contact Rave Mobile Safety directly for additional details on upgrading to Standard Smart911.

What is included in the Standard version of Smart911?

This is an optional purchase made by individual PSAPs and their governing jurisdictions. The Standard version of Smart911 provides opt-in, citizen-provided data including information about a household, important medical conditions, photographs of individuals, and premise notes. Smart911 Standard provides an additional location component allowing the PSAP to rebid or update the location of a 911 call, even if the call has dropped, for opted-in phones on AT&T, Sprint, and Verizon.



What is the timeline for a statewide deployment of Smart911 Basic?

A timeline is currently under development with the State 911 Office, Rave Mobile Safety, and the Mental Health and Wellness Commission.

Is Smart911 Basic mandatory?

The installation of Smart911 Basic is not mandatory and should be based on local finances and public policy.

Who has Smart911 in Michigan right now?

The following have entered into contracts or have already deployed Smart911 in Michigan:

Counties:

Van Buren	Barry	Eaton	Shiawassee	Gratiot
Muskegon	Ionia	Ottawa	Montcalm	Oscoda
Grand Traverse	Kalkaska	Crawford		

Municipality:

City of Milan

Will Smart911 Basic have any impact on Deaf or Hard of Hearing Relay Services?

No, Relay Service calls will arrive at the PSAP in the same manner. You can find more information at:

<http://c.ymcdn.com/sites/www.nena.org/resource/resmgr/Docs/PSAPVRSIPRelayFAQs.pdf?hhSearchTerms=%22vrs+and+ip+and+relay%22>

<https://www.captioncall.com/captioncall>

How do I request Smart911 Basic at my PSAP?

Rave Mobile Safety will contact each PSAP in the State to initiate deployment activities. Additionally, Rave Mobile Safety's project management details will be provided through the State 911 Office if a PSAP would like to begin sooner.

How will I know if my PSAP has the necessary equipment to accommodate Smart911 Basic? After initial contact with the PSAP, Rave Mobile Safety will perform an evaluation of the PSAP's on-site equipment and advise them if the equipment they currently have will work, or if not, what the PSAP needs on-site. If any additional equipment is needed, the cost is the expense of the PSAP. Rave Mobile Safety anticipates that very few PSAPs will need additional equipment on-site, and if so, that it will not be expensive. (If a purchase is necessary at the PSAP for Smart911, it is an allowable expense).

What about the communities in Michigan that already have Smart911?

Following the State's procurement of Smart911 Basic, Rave Mobile Safety will work with the 14 existing Smart911 clients individually to determine what best meets their own specific needs. Options include additional Rave Mobile Public Safety solutions or alterations to existing contracts. These arrangements will be negotiated on a case-by-case basis with the affected jurisdictions. Rave Mobile Safety and the State of Michigan are committed to doing what is best for the communities that have already taken proactive steps to enhance Public Safety.

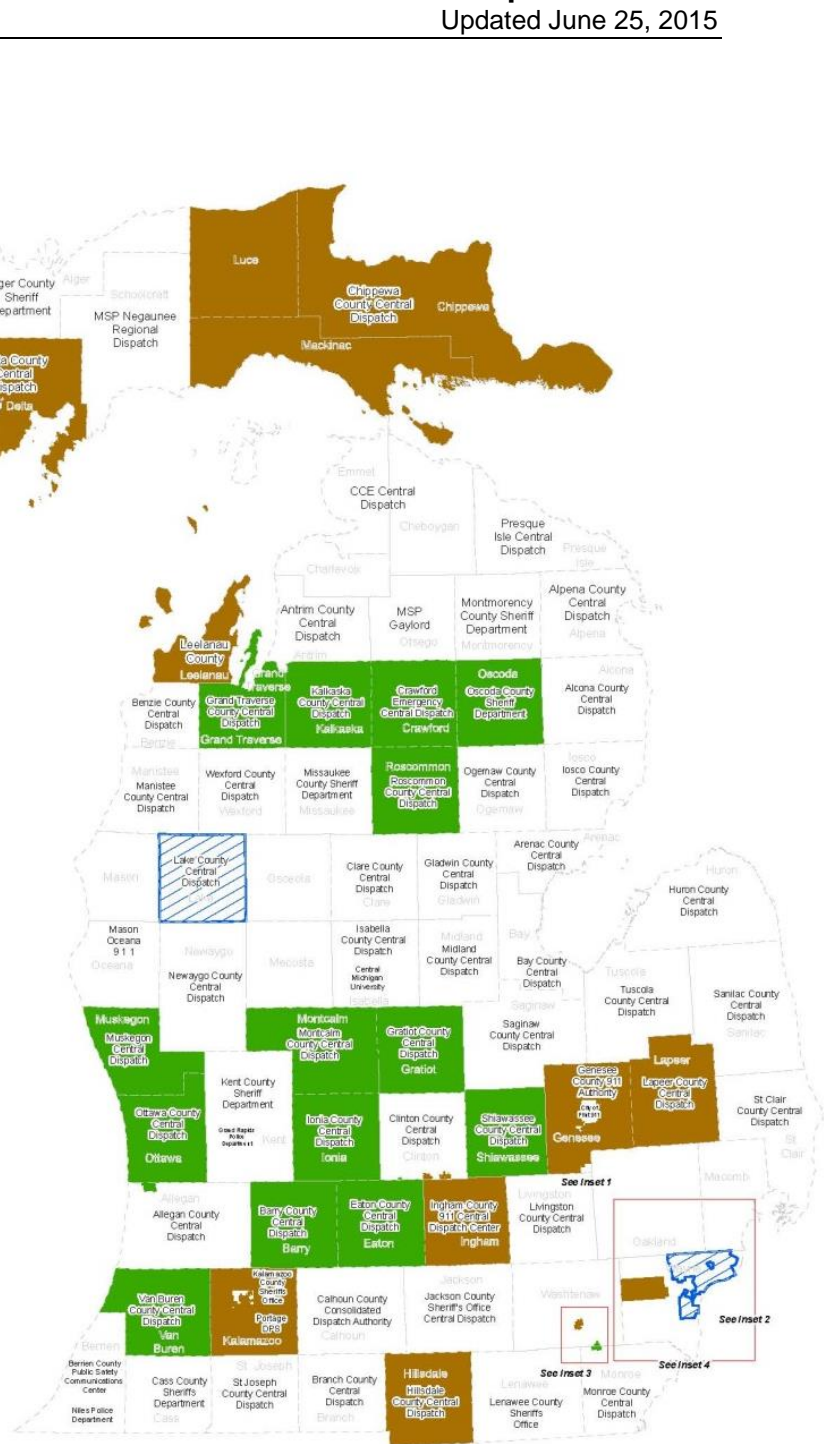
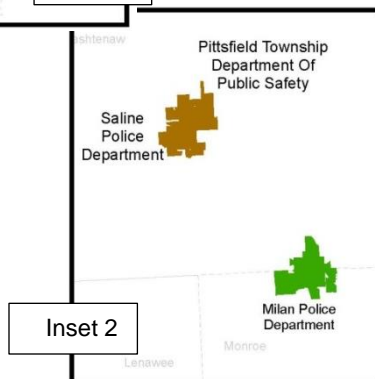
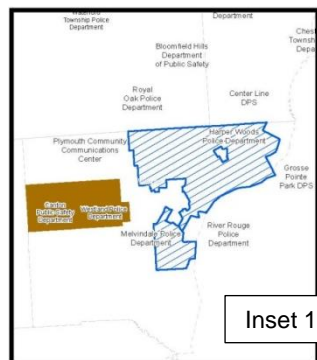
Status Map of Smart911

Updated June 25, 2015

Appendix 10

Legend

- Standard Deployed
- Basic Deployed
- Planning Standard Deployment
- Planning Basic Deployment
- Not participating in Smart911



Recommended Best Practices for Compliance Reviews

Appendix 11

Administrative

The following criteria are recommended as best practice:

Written service agreements for any and all contracted services. Some examples are:

- Building lease agreement.
- Informational Technology (IT) services.
- Tower agreements.
- Bookkeeping and/or payroll.

911 Plan

Review the plan annually at minimum to determine if alteration is necessary. Considerations for review to reflect a change in management of the system (including technical management), as well as call handling agreements between different jurisdictions. The plan contains:

- Operational considerations.
- Technical considerations.
- Fiscal considerations.
- Managerial considerations.
- Valid ballots.
- Agreements on fund distribution (if applicable) or plan.

911 Board

Named board is listed in the final 911 Plan (where applicable), along with the following items:

- By-laws are defined, adhered to, and posted for the public.
- Level of authority held by the board.
- Board members include MSP, Sheriff, and fire personnel (*if established after 1994*).
- Meeting minutes.
- Public posting of meeting date(s), time(s), and location.
- Meetings scheduled and held on a regular basis.

Contacts

Maintain a list of appropriate PSAP managers and contact information.

- List is updated as changes arise and is shared with the State 911 Administrative office.

Staffing

- Establish a minimum staffing level according to the needs of the center.
- Ensure a process is in place for fill in for scheduled and unscheduled absences.
- Maintain a position management system which identifies the job type and classification number of each staff member.
- It is recommended employees be provided with periodic performance-related reviews by management.

Training*

See the State 911 Committee's Telecommunicator Training Program Manual.

- Possess a defined, written, in-house training program which includes evaluation.
- Process to determine selection of trainers, or Communications Training Officers (CTO).
- Apply for SNC approved training funds.
- Determine a fair rotation for staff to attend training courses.
- Performance measures to include:
 - Identifying key personnel responsible for overseeing the process.
 - Training personnel.
 - The activities and outcomes to be measured.
 - The measurement methodology.
 - How feedback is obtained and delivered from internal staff and to outside agencies.
 - Quarterly review at minimum, which includes review of the process itself.

Education

- Public Education program includes:
 - Providing information on the agencies' community education objectives.
 - Developing community public education policies.
 - Publicizing objectives, problems, and successes.
 - Conveying information to citizens and agencies.
 - Improving agency practices.
 - Identifying training needs.

Supervision

A clear chain of command shown, with the responsibilities of each level within the organization as well as a predetermination of whom has authority in emergency situations defined.

- A written personnel policy is in place that addresses chain of command and in the event an employee is involved in an incident that may cause the agency to be questioned regarding liability.
- Policies written requiring employees to obey any lawful order of a superior, including an order relayed by another employee. This directive includes procedures to be followed by an employee who receives a conflicting or unlawful order.
- Policies establishing procedures for communication.
- Policies regarding supervision to include:
 - Responsibilities of Director of the PSAP and define authority to issue, modify, or approve written directives.
 - Agency values and mission statement.
 - Requirement of employees to read, sign, and abide by the organizations' Code of Ethics or Values.
 - Defined off-duty code of conduct.

Operational

The following criteria are recommended as best practice:

Standard Operating Procedures (SOPs) (Duties of staff, call intake)

- Each position from call taker to director has a detailed job description that is current.

- SOPs are in place and current.
- SOPs are reviewed at least bi-annually.
- SOPs are readily available at each workstation for employee reference.

Policy & Procedure

- Establish how policies and procedures are provided to the employees.
- Where they are stored.
- Document receipt of policies and procedures by employees.
- Procedures regarding supervision to include:
 - Indexing, purging, updating, and revising directives' statements of agency policy rules and regulations.
 - Carrying out agency activities.
 - Review of proposed policies, rules, and/or regulations prior to their promulgation.

Technical Support

- Technical support is available 24 / 7 by either in-house employees or contracted technical support services, i.e. through County, Departmental, or contracted IT service.

Cyber Security

- The center has security hardware in place (firewall) to keep unwanted outside parties from accessing the center's intranet.
- Agency ensures the systems are guarded from viruses and unauthorized access.
- The center has antivirus security software on servers and PCs with current program updates and software versions.
- The center is compliant with Criminal Justice Information Systems (CJIS) policy.
- The center has a designated Local Agency Security Officer (LASO).
- All personnel having access to CJIS have completed Information Technology Security Awareness Training (new employees with less than six months on the job, and existing employees must complete this training every two years).

Emergency Medical Dispatch (EMD)*

- EMD program includes ongoing involvement, cooperation and protocol oversight with respective medical control authority.
- EMD program includes 3 elements:
 - Triaging- the incoming request for medical service to determine response levels:
 - No response
 - Non-emergency transport
 - Emergency transport
 - PAI's- Providing pre-arrival instructions (PAI's) to caller so they can immediately help the victim.
 - QA – A quality assurance program to evaluate compliance with EMD protocols.
- Dispatchers tasked for medical intake calls should be EMD certified and be able to perform medical intake from their workstations via desktop access or flip cards.

Law Enforcement Information Network (LEIN)*

- Terminal located in a secure area.
- Assign a Terminal Agency Coordinator (TAC).
- Ensure compliance with all LEIN Security Rules & Regulations.
- For non-criminal justice agencies, have a management control agreement in place.
- Ensure approved Network Diagram, including advanced authentication requirements.
- Ensure appropriate training for staff, TAC, and LASO.
- Maintain LEIN Security awareness training & re-certifications of staff.
- Ensure background checks for individuals who have unescorted direct or indirect access to Criminal Justice Information Systems.
- Keep Policy and Procedures updated with the latest LEIN guidelines.

Master Street Address Guide (MSAG)

- Ensure MSAG is current with regularly scheduled updates.
- Determine oversight of MSAG by staff or outside agency.

Mapping

- Determine oversight of mapping by staff or outside agency.
- Confirm mapping layers are current and have regularly scheduled updates.
- Ability to plot Phase II location into CAD.

Interpreters Service*

- Translation service should be used for interpretation for limited and/or non-English speaking callers.
- There should be a contract established with translation services. Translation service provides over-the-phone voice interpretation services utilizing a staff of interpreters capable of providing translation for over 170 different languages. When a call is received from a limited and/or non-English speaking caller, a process should be in place to initiate a conference call in a short period of time, so that the language can be identified and the appropriate interpreter can be engaged.

Call Intake*

Emergency 911 Calls

- Identify the name of the Dispatch Center upon answering phone lines.
- Establish basic information, name of caller and call back phone number, what is going on and who is in need or needed to respond, where the emergency is, and follow-up questions to clarify information.
- Determine policies regarding:
 - Entry and updating calls into CAD.
 - Proper call handling instructions.

Equipment

The following criteria are recommended as best practice:

Network & Network Diagrams (Local Area Network (LAN), Wide Area Network (WAN), Wireless)

- Diverse telephone entrance facilities into PSAP.
- Quantity of trunks from 911 System Service Provider adequate to provide P.01 grade of service.
- Dual-homed Selective Router if available.
- The center's network infrastructure is documented in the event of an abrupt departure of the primary technical contact. Documentation should exist so that someone not familiar with the center can understand the network without extensive reverse engineering.
- The center has detailed network diagrams (or equivalent) of the network infrastructure and can provide documentation on IP addressing, machine names, and passwords for the following systems:
 - LAN/WAN
 - Network router/switching devices
 - Radio/Telephone recording system
 - CPE system
 - Backup server
 - Domain controller
 - VPNs
 - Time server
 - Firewall
 - Multibridge
 - All workstations
 - Any other servers

Telephony (VoIP, ANI/ALI, WRLS, WPH2)*

ANI/ALI Controller

- ANI/ALI Controller should be supported by the manufacturer, not at end of life (EOL).
- ANI/ALI Controller should be running a supportable software release.
- Workstations and servers should be running an OS version that is supported by Microsoft or by the manufacturer if not a Microsoft platform.
- PSAP should have a current maintenance contract for the ANI/ALI controller with either the manufacturer or with a reseller. If the contract is with a reseller, PSAP should verify a support contract with the manufacturer.
- Remote maintenance access or web-enabled components to the ANI/ALI controller or workstations should comply with NENA 04-503 Network / System Access Security.
- Future ANI/ALI controllers purchased should meet NENA 08-003-Detailed Functional and Interface Standards for the NENA i3 Solution.

Wireless

- The ANI/ALI Controller should be able to receive and display Tower location for a Phase 1 wireless call.
- The ANI/ALI Controller should be capable of performing a re-bid to attempt to upgrade the call to Wireless Phase 2 (WPH2).

- The ANI/ALI Controller should be able to receive the X/Y Coordinates of a Phase 2 call, and be able to pass the information to a CAD or Mapping system to allow the display of the caller's location on a map.
- System in place to verify accuracy of calls.

Computer Aided Dispatch

- Computers should be properly licensed and copyrighted.
- System designs include provision(s) for expansion of the system to include capabilities not required in initial implementation, including the addition of primary and secondary PSAPs.
- Policies for CAD include:
 - Administrator(s) of the system.
 - Password construction.
 - Redundancy.
 - Backup and storage location and destruction of backup files.
 - An email/internet usage policy that includes no expectation of privacy.

Radio System*

- The center has a 24-hour, two-way radio capability with continuous communication.
- The center has multi-channel radio capabilities with two-way operation on joint public safety, inter-jurisdictional, and/or regional frequencies.
- A written directive that lists the following:
 - All equipment.
 - Frequencies.
 - Persons responsible for monitoring.
 - Available means of communication.
 - Annual interoperable equipment testing.
 - Annual review of personnel assignments.

Recording System*

- The center has the ability of immediate playback of recorded phone and radio conversations while it maintains a continuous recording of all within the centers.
- Recordings are retained for a minimum of 30 days.
- Policy for recording includes:
 - Secure handling and storage for recordings.
 - Criteria and procedures for reviewing recorded information.

Video Relay Service (VRS)/Teletypewriter (TTY)/Telecommunications Device for the Deaf (TDD)*

- The center has a TTY/TDD or equivalent system at each emergency answering point.
- Policies for processing calls via TTY/TDD include:
 - Initial training.
 - Retraining of personnel every six months.
 - Documented monthly testing of TTY/TDD equipment.

Mobile Data Terminal (MDT)/Automatic Vehicle Locator (AVL)*

- If the center has software allowing agency's mobile devices to connect remotely, the

center has the following in place:

- System memorandum of understanding (MOU)/memorandum of agreement (MOA) between the center and connecting agencies.
- User policy for all connecting users.

Facility

- Equipment room should comply with NENA 04-502 - E911 PSAP CPE Site Characteristics.
- Bathrooms: Accessible within the communications center's secure area.
- Break Room: Accessible within the communications center's secure area.

Communications Center

- Staff access to the following equipment:
 - LEIN
 - Resource materials
 - Consoles/Radio playback
 - Fax machine
 - TTY/TDD
 - Weather monitoring
 - Internet
 - CPE
- American Disabilities Act (ADA) compliant access to work stations
- Adequate seating

Backup

The following criteria are recommended as best practice:

Trouble Reporting*

- Supervisor(s) (if applicable) / employees understand any trouble reporting procedures and have all contact information available 24 / 7.

Uninterruptible Power Source (UPS)

- All critical equipment, i.e. 911 phone system, CAD (if applicable), records etc. are connected to a UPS with 30 minute capability under full load.
- Maintenance of UPS is documented and system is tested on a regularly scheduled basis.

Generator

- Emergency backup power with automatic transfer switching is connected to primary call center, tower sites, and backup center (where applicable).
- Generators are tested under load on a scheduled basis.
- Generator testing is documented.

Call Rerouting*

- Call rerouting / transfer is in place in case of primary site failure or evacuation.
- All employees are aware of how to reroute calls in case of emergency.
- Written policy and agreement with re-route location for receipt of calls.

Backup Center

- A backup center is available in case of emergency, or documented agreements are in place with surrounding PSAPs in case of evacuation.

Disaster Recovery Plans*

Funding

The following criteria are recommended as best practice:

- 911 budgets for each PSAP in the county for the current year and at least two years prior to that.
- Copies of agreements for fund distribution between the county and PSAPs (where more than one PSAP exists within said county).
- Copies of budgetary reports or journals including the line items for 911 fund receipts and expenditures for each PSAP for the current year and at least two years prior to that.
Additionally:
 - Copies of vouchers may also be requested.
 - Proof of earned interest following principal.
- Copy of indirect and administrative costs and calculation, if they are being charged to 911.
- Copy of SNC training funds, revenue journal entries and expenditures, and completed DTS-510 forms to date for each PSAP that received State 911 Committee training funds.
- Written description of fund distribution (wireless and wireline) for all PSAPs.

Resources

<http://www.911.gov>

<http://www.nena.org/>

<http://www.michigannena.org/>

<http://www.apcointl.org/>

<http://www.miapco.org/>

<http://www.fcc.gov/>

<http://nasna911.org>

<http://www.michigan.gov/snc>

<http://www.calea.org>

**Items marked with an asterisk within the document must have a policy and procedure.*

PSAP Training Fund Payment History

Appendix 12

NAME	2010	2011	2012	2013	2014
Alcona County Central Dispatch	\$6,304	\$0	\$7,822	\$8,593	\$8,916
Alger County Sheriff's Department	\$1,801	\$1,930	\$1,117	\$0	\$3,343
Allegan County Central Dispatch	\$18,012	\$19,301	\$23,466	\$27,008	\$0
Alpena County Central Dispatch	\$9,005	\$9,650	\$11,174	\$12,277	\$12,259
Antrim County Central Dispatch	\$9,005	\$8,685	\$10,057	\$12,277	\$10,031
Arenac County Central Dispatch	\$9,005	\$9,650	\$11,174	\$11,048	\$11,145
Auburn Hills Police Department	\$9,005	\$8,685	\$0	\$11,048	\$11,145
Barry County Central Dispatch	\$15,310	\$16,406	\$16,762	\$18,414	\$15,602
Bay County Central Dispatch	\$19,813	\$22,196	\$23,466	\$25,780	\$25,632
Benzie County Central Dispatch	\$8,105	\$8,685	\$10,057	\$9,821	\$10,031
Berkley Department of Public Safety	\$0	\$0	\$0	\$0	\$0
Berrien County Public Safety Comm. Ctr.	\$24,315	\$28,952	\$34,641	\$40,511	\$0
Birmingham Police Department	\$5,403	\$0	\$0	\$0	\$10,031
Bloomfield Hills Dept. of Public Safety	\$3,602	\$3,860	\$0	\$6,138	\$5,573
Bloomfield Township Police Department	\$12,608	\$13,511	\$15,644	\$15,959	\$14,488
Branch County Central Dispatch	\$0	\$0	\$0	\$0	\$0
Brownstown Twp. Police Department	\$5,403	\$5,790	\$0	\$0	\$0
Calhoun County Consolidated Disp. Auth.	\$27,017	\$28,952	\$34,641	\$38,056	\$35,663
Canton Public Safety Department	\$15,310	\$15,441	\$0	\$0	\$0
Cass County Sheriff Department	\$8,105	\$9,650	\$11,174	\$11,048	\$10,031
CCE Central Dispatch Authority	\$17,111	\$19,301	\$22,349	\$25,780	\$23,404
Center Line Department of Public Safety	\$3,602	\$0	\$0	\$0	\$0
Central Michigan University	\$5,403	\$5,790	\$6,705	\$7,366	\$7,801
Chelsea Police Department	\$4,503	\$4,825	\$5,587	\$6,138	\$4,458
Chesterfield Twp. Police Department	\$0	\$6,755	\$7,822	\$5,145	\$7,801
Chippewa County Central Dispatch	\$12,608	\$13,511	\$14,527	\$17,186	\$14,488
Clare County Central Dispatch	\$9,906	\$9,650	\$12,292	\$12,277	\$11,145
Clay Township Police Department	\$3,602	\$3,860	\$5,587	\$6,138	\$5,573
Clinton County Central Dispatch	\$13,509	\$14,476	\$16,762	\$18,414	\$16,716
Crawford Emergency Central Dispatch	\$7,204	\$6,755	\$7,822	\$4,502	\$0
Dearborn Police Department	\$17,111	\$0	\$20,114	\$22,097	\$20,060
Dearborn Heights Police Department	\$14,409	\$13,511	\$0	\$0	\$0
Delta County Central Dispatch	\$7,204	\$7,720	\$10,057	\$11,048	\$10,031
Detroit Police Department	\$113,472	\$113,875	\$0	\$0	\$0
Dickinson County Central Dispatch	\$9,005	\$8,685	\$10,057	\$11,048	\$11,145
Downriver Central Dispatch (Wyandotte)	\$4,503	\$6,755	\$12,292	\$14,732	\$13,374
Eastern Michigan University DPS	\$4,503	\$7,720	\$10,057	\$11,048	\$10,031

NAME	2010	2011	2012	2013	2014
Eaton County Central Dispatch	\$21,614	\$22,196	\$24,584	\$28,236	\$24,518
Ecorse Police Department	\$0	\$0	\$0	\$0	\$0
Farmington Hills Police Department	\$18,012	\$16,406	\$17,879	\$0	\$0
Fenton Police Department	\$5,403	\$4,825	\$5,587	\$6,138	\$4,458
Ferndale Police Department	\$5,403	\$4,825	\$4,470	\$7,366	\$5,573
Flat Rock Police Department	\$0	\$0	\$0	\$0	\$0
Flint 911	\$21,614	\$22,196	\$26,819	\$30,691	\$27,862
Fraser Department of Public Safety	\$5,403	\$0	\$0	\$0	\$0
Genesee County 911 Authority	\$30,619	\$32,812	\$41,346	\$45,422	\$45,693
Gilbralter Police Department	\$0	\$0	\$0	\$0	\$0
Gladwin County Central Dispatch	\$9,906	\$10,616	\$12,292	\$13,504	\$12,259
Grand Rapids Police Department	\$35,123	\$43,427	\$52,520	\$61,381	\$49,036
Grand Traverse County Central Dispatch	\$16,211	\$18,336	\$22,349	\$12,220	\$21,174
Gratiot County Central Dispatch	\$0	\$0	\$0	\$0	\$10,031
Grosse Ile Township Police Department	\$4,503	\$4,825	\$5,587	\$0	\$5,573
Grosse Pointe Farms DPS	\$0	\$0	\$0	\$0	\$0
Grosse Pointe Park DPS	\$3,602	\$3,860	\$0	\$0	\$4,458
Grosse Pointe Woods DPS	\$0	\$4,825	\$0	\$6,138	\$5,573
Hamtramck Police Department	\$0	\$0	\$0	\$643	\$2,229
Harper Woods Police Department	\$3,602	\$2,895	\$0	\$0	\$0
Hazel Park Police Department	\$2,702	\$2,895	\$3,352	\$0	\$0
Hillsdale County Central Dispatch	\$11,708	\$12,546	\$14,527	\$17,186	\$15,602
Huron County Central Dispatch	\$9,906	\$10,616	\$0	\$13,504	\$12,259
Huron Township Police Department	\$5,403	\$5,790	\$6,705	\$0	\$0
Ingham County 911 Central Dispatch Ctr.	\$0	\$0	\$0	\$68,747	\$65,753
Ionia County Central Dispatch	\$11,708	\$13,511	\$14,527	\$15,959	\$14,488
Iosco County Central Dispatch	\$9,906	\$9,650	\$12,292	\$13,504	\$12,259
Iron County Central Dispatch	\$9,006	\$10,616	\$13,409	\$0	\$0
Isabella County Central Dispatch	\$11,708	\$12,546	\$14,527	\$14,732	\$14,488
Jackson County Central Dispatch	\$18,012	\$18,336	\$21,232	\$0	\$0
Kalamazoo County Sheriff's Office	\$3,602	\$0	\$4,470	\$0	\$0
Kalamazoo Public Safety	\$18,012	\$20,266	\$22,349	\$24,552	\$21,174
Kalamazoo Township Police Department	\$4,503	\$4,825	\$0	\$6,138	\$5,573
Kalkaska County Central Dispatch	\$6,304	\$7,720	\$7,822	\$8,593	\$6,687
Kent County Sheriff Department	\$25,216	\$36,672	\$51,403	\$54,015	\$53,494
Lake County Central Dispatch	\$9,906	\$12,546	\$12,292	\$14,732	\$12,259
Lapeer County Central Dispatch	\$16,211	\$17,371	\$20,114	\$22,097	\$20,060
Leelanau County Central Dispatch	\$9,906	\$10,616	\$12,292	\$12,277	\$11,145
Lenawee County Sheriff's Office	\$16,211	\$18,336	\$20,114	\$22,097	\$20,060

NAME	2010	2011	2012	2013	2014
Livingston County Central Dispatch	\$23,415	\$22,196	\$24,584	\$28,236	\$30,090
Livonia Police Department	\$8,105	\$0	\$0	\$0	\$0
Macomb County Sheriff's Department	\$21,614	\$23,161	\$26,819	\$29,463	\$32,320
Madison Heights Police Department	\$0	\$0	\$0	\$0	\$8,916
Manistee County Central Dispatch	\$0	\$0	\$0	\$0	\$0
Marquette County Central Dispatch	\$10,806	\$10,616	\$12,292	\$13,504	\$12,259
Mason-Oceana 911	\$13,509	\$13,511	\$15,644	\$18,414	\$17,831
Meceola Consolidated Central Dispatch	\$14,409	\$14,476	\$17,879	\$19,642	\$17,831
Melvindale Police Department	\$0	\$0	\$0	\$0	\$0
Menominee County Central Dispatch	\$9,005	\$9,650	\$11,174	\$0	\$11,145
Michigan State Police	\$74,747	\$60,797	\$63,695	\$71,202	\$60,180
Midland County Central Dispatch	\$15,310	\$16,406	\$17,879	\$20,870	\$20,060
Milan Police Department	\$0	\$0	\$4,470	\$4,911	\$4,458
Milford Village Police Department	\$0	\$0	\$0	\$0	\$4,458
Missaukee County Sheriff's Department	\$4,503	\$4,825	\$0	\$7,366	\$6,687
Monroe County Central Dispatch	\$19,813	\$20,266	\$23,466	\$24,552	\$23,404
Montcalm County Central Dispatch	\$16,211	\$17,371	\$20,114	\$22,097	\$20,060
Montmorency County Sheriff's Department	\$0	\$4,825	\$5,587	\$6,138	\$0
Muskegon County Central Dispatch	\$23,415	\$25,091	\$29,054	\$33,145	\$32,320
Newaygo County Central Dispatch	\$9,906	\$10,616	\$12,292	\$13,504	\$11,145
Northville Twp. Department of Public Safety	\$10,806	\$0	\$0	\$0	\$0
Niles Police Department	\$6,304	\$5,790	\$6,705	\$0	\$0
Novi Police Department	\$13,509	\$13,511	\$14,527	\$14,732	\$13,374
Oak Park Department of Public Safety	\$4,503	\$5,790	\$0	\$7,366	\$5,573
Oakland County Sheriff Department	\$39,625	\$44,392	\$56,990	\$67,519	\$62,410
Ogemaw County Central Dispatch	\$8,105	\$9,650	\$11,174	\$13,504	\$11,145
Oscoda County Sheriff's Department	\$0	\$0	\$0	\$0	\$0
Otsego County 911 Dispatch	\$0	\$0	\$0	\$8,593	\$0
Ottawa County Central Dispatch	\$30,619	\$33,777	\$39,111	\$41,739	\$36,778
Oxford Police Department	\$4,503	\$4,825	\$5,587	\$6,138	\$5,573
Pittsfield Twp. Department of Public Safety	\$7,204	\$8,685	\$8,940	\$11,048	\$8,916
Plymouth Community Communications Ctr.	\$9,906	\$0	\$0	\$0	\$0
Portage Department of Public Safety	\$0	\$0	\$12,292	\$13,504	\$11,145
Presque Isle Central Dispatch	\$3,602	\$3,860	\$4,470	\$4,911	\$0
Redford Twp. Police Department	\$6,304	\$5,790	\$6,705	\$7,366	\$6,687
Richmond Police Department	\$4,503	\$4,825	\$5,587	\$6,138	\$5,573
River Rouge Police Department	\$0	\$0	\$0	\$0	\$0
Rochester Police Department	\$3,602	\$3,860	\$0	\$4,911	\$5,573

NAME	2010	2011	2012	2013	2014
Rockwood Police Department	\$3,602	\$3,860	\$4,470	\$4,911	\$4,458
Romeo Police Department	\$4,503	\$4,825	\$4,470	\$4,911	\$4,458
Romulus Police Department	\$7,204	\$7,720	\$0	\$0	\$0
Roscommon County Central Dispatch	\$9,906	\$11,581	\$13,409	\$13,504	\$13,374
Royal Oak Police Department	\$9,005	\$8,685	\$10,057	\$9,821	\$10,031
Saginaw County Central Dispatch	\$34,222	\$37,637	\$43,581	\$44,195	\$42,349
Saline Police Department	\$3,602	\$3,860	\$4,470	\$4,911	\$10,031
Sanilac County Central Dispatch	\$8,105	\$9,650	\$10,057	\$11,048	\$0
SERESA	\$23,749	\$14,476	\$24,584	\$28,236	\$25,632
Shelby Township Police Department	\$0	\$10,616	\$0	\$13,504	\$11,145
Shiawassee County Central Dispatch	\$9,906	\$9,650	\$12,292	\$14,732	\$13,374
South Downriver Communications Center	\$3,602	\$3,860	\$4,470	\$4,911	\$6,687
Southfield Public Safety	\$18,912	\$19,301	\$21,232	\$20,870	\$18,946
St. Clair County Central Dispatch	\$19,813	\$22,196	\$21,232	\$23,325	\$21,174
St. Joseph County Central Dispatch	\$15,310	\$16,406	\$17,879	\$0	\$18,946
Sterling Heights Police Department	\$20,713	\$20,266	\$23,466	\$24,552	\$21,174
Sumpter Township Police Department	\$0	\$0	\$0	\$0	\$0
Taylor Police Department	\$9,005	\$0	\$0	\$0	\$17,831
Troy Police Department	\$18,012	\$19,301	\$22,349	\$23,325	\$21,174
Tuscola County Central Dispatch	\$11,708	\$11,581	\$13,409	\$15,959	\$13,374
University of Michigan Police Department	\$0	\$10,616	\$13,409	\$13,504	\$12,259
Utica Police Department	\$0	\$0	\$0	\$0	\$5,573
Van Buren County Central Dispatch	\$11,708	\$12,546	\$14,527	\$17,186	\$15,602
Van Buren Township DPS	\$0	\$9,650	\$11,174	\$0	\$0
Warren Police Department	\$18,012	\$0	\$0	\$0	\$0
Washtenaw County Metro Dispatch	\$0	\$0	\$0	\$35,601	\$36,778
Waterford Township Police Department	\$13,509	\$14,476	\$13,409	\$15,959	\$13,374
Wayne County Airport Authority	\$5,403	\$4,825	\$0	\$0	\$0
West Bloomfield Police Department	\$12,608	\$13,511	\$12,292	\$14,732	\$13,374
Western Michigan University Police Dept.	\$3,602	\$3,860	\$4,470	\$0	\$0
Westland Police Department	\$0	\$0	\$0	\$22,273	\$23,404
Wexford County Central Dispatch	\$8,105	\$8,685	\$10,057	\$11,048	\$0
White Lake Township Police Department	\$5,403	\$5,790	\$6,705	\$3,859	\$6,687
Woodhaven Police Department	\$0	\$0	\$0	\$0	\$0

Allowable/Disallowable Usage of 911 Surcharge Funds

Appendix 13

ALLOWABLE 911 SURCHARGE FUNDS 911 SURCHARGE EXPENDITURES

Personnel Costs directly attributable to the delivery of 911 service (i.e. directors, supervisors, dispatchers, call-takers, technical staff, support staff):

Salaries	MSAG Coordination
Uniforms	Addressing/Database
Fringe Benefits	EAP

Note: If 911 staff serves dual functions (i.e. a director who is also in charge of Emergency Management, a dispatcher who is also a police officer) then only those portions of personnel costs attributable to their 911 functions should be allowable.

Facility Costs of the dispatch center directly attributable to the delivery of 911 service:

- Capital improvements for construction, remodeling, or expansion of dispatch center
- Electrical/Heat/AC/Water
- Fire Suppression System
- Cleaning, Maintenance, Trash Removal
- Telephone
- Generator/UPS and Grounding
- Insurance
- Office Supplies
- Printing and Copying
- Furniture

Note: If a shared facility, only those portions of facility costs attributable to the 911 functions should be allowable.

Training and Memberships directly related to 911 service:

- On the job training
- Vendor provided training
- Conferences
- Travel and lodging as necessary
- Membership in associations (APCO, NENA, etc.)

THE BELOW DISALLOWABLE EXPENSES ARE MEANT TO SERVE AS EXAMPLES ONLY – PLEASE REFER TO THE STATE 911 COMMITTEE APPEALS PROCESS FOR QUESTIONS.

Personnel Costs of law enforcement, fire, and EMS responders, emergency management staff, shared support or technical staff, except for portions of time directly functioning as 911 allowable staff.

Facility Costs of law enforcement, fire, EMS, emergency management, or other municipal facilities, except for that portion housing the 911 center or backup center, or leased to the 911 center for allowable training or meeting facilities.

Capital costs and furnishing for facilities for which the primary purpose is other than 911 (i.e. a conference room used primarily for the City Council but occasionally leased/loaned to the 911 center for meetings.)

Training for staff not involved directly in the delivery of 911 service, or for any staff for courses not directly attributable to 911 or dispatching services.

Memberships for staff not involved directly in the delivery of 911 service, or for associations with a primary purpose other than public safety communications (i.e. sheriff's associations, police or fire chief associations, etc.)

ALLOWABLE 911 SURCHARGE FUNDS 911 SURCHARGE EXPENDITURES

Hardware, software, connectivity, and peripherals directly attributable to the delivery of 911 service:

- Customer Premise Equipment
- Remote CPE Hardware/Modems
- Computer-Aided Dispatch
- Radio system (consoles, infrastructure, field equipment)
- LEIN costs for dispatch purposes
- Paging System, pagers, and related costs
- Voice logging equipment
- Mobile Data Systems
- GIS/Mapping Systems/AVL Systems
- Alarms/Security Systems
- Connectivity for any of the above
- Maintenance and service agreements of above
- Software licensing of the above
- Associated database costs

Vehicle costs (staff vehicle, pool car, mileage reimbursement, fuel, etc.) directly attributable to the delivery of 911 service:

Travel for meetings, training, conferences
Travel for MSAG verification and testing
Travel for 911 public education purposes

Professional Services

Attorneys	Consultants	Insurance
Architects	Auditor	

Public Information/Education Expenses directly attributable to the delivery of 911 service.

DISALLOWED 911 SURCHARGE FUNDS 911 SURCHARGE EXPENDITURES

Hardware, software, connectivity and peripherals not attributable to the delivery of 911 service:

- Law Enforcement Record Management Systems
- Fire Records Management Systems
- EMS Records Management Systems
- Jail Records Management Systems
- LEIN costs for non-911 functions (e.g., records unit)
- Word processing, databases, etc. not directly attributable to 911 service
- GIS not directly related to the delivery of 911 service
- Court Information Systems
- Connectivity for any of the above
- Maintenance and service agreements for any of the above
- Software licensing for any of the above
- Non-Emergency 911 systems

Vehicle costs (fleet vehicle, pool car, mileage reimbursement, etc.) for law enforcement, fire, or EMS responders, such as patrol cars, fire apparatus, ambulances, etc.

Professional Services not directly attributable to the delivery of 911 service.

Public Information not directly attributable to the delivery of 911 service.

Miscellaneous:

Road signs/Addressing Implements

Emergency Telephone Service Committee
6/21/2005

State 911 Committee revised
6/23/2009

Glossary of Terms

Appendix 14

911 A three-digit telephone number to facilitate the reporting of an emergency requiring response by a public safety agency.

911 Network - Literally, the dedicated circuits and switching components used to transport voice from the originating central office, PBX, or other equivalent point to the 911 controller unit at the PSAP.

911 Service - The delivery of 911 dialed calls from the originating switch to the PSAP call taker, with associated delivery of ANI and ALI data.

911 System - The set of network, database and CPE components required to provide 911 service.

AR Alternate Routing

A standard feature provided to allow E911 calls to be routed to a designated alternate location if **(1)** all E911 exchange lines to the primary PSAP are busy, or **(2)** the primary PSAP is closed down for a period of time (night service).

Analog

As applied to 911, call transport using signaling involving a physical change, such as voltage or frequency. Analog trunking using multi-frequency tones (MF).

APCO Association of Public Safety Communications Officials

The Association of Public Safety Communications Officials International, Inc. is a not-for-profit professional organization dedicated to the enhancement of public safety communications. APCO exists to serve the people who manage, operate, maintain, and supply the communications systems.

ACN Automatic Collision Notification

A service provided by vendors such as OnStar and ATX that allows sensors in vehicles to automatically initiate a call to a central answering point upon specific levels of vehicle impact, air bag deployment, etc.

ALI Automatic Location Identification

The automatic display at the PSAP of the caller's telephone number, the address/location of the telephone and supplementary emergency services information.

ANI Automatic Number Identification

Telephone number associated with the access line from which a call originates.

Basic 911

An emergency telephone system, which automatically connects 911 callers to a designated answering point. Call routing is determined by originating central office only. Basic 911 may or may not support ANI and/or ALI.

CAS Call Associated Signaling

Allows for the device position or location information to be delivered to the emergency services network in the call signaling as part of the call set-up information. With CAS, the originating network pushes the position information to an Emergency Services Network Entity (ESNE).

CBN Callback Number

The VoIP subscriber's telephone number.

CTIA Cellular Telecommunications and Internet Association

The Cellular Telecommunications and Internet Association is the international organization that represents all elements of wireless communication such as cellular, personal communication services, enhanced specialized mobile radio, and mobile satellite services serving the interests of service providers, manufacturers, and others.

CO Central Office

The Local Exchange Carrier facility where access lines are connected to switching equipment for connection to the Public Switched Telephone Network.

CMRS Commercial Mobile Radio Service includes all of the following:

1. A wireless 2-way communication device, including a radio telephone used in cellular telephone service or personal communication service.
2. A functional equivalent of a radio telephone communications line used in cellular telephone service or personal communication service.
3. A network radio access line.

CMRS Connection - Each number assigned to a CMRS customer.

Company Identifier (Company ID)

A 3 to 5 character identifier chosen by the Local Exchange Carrier that distinguishes the entity providing dial tone to the end user. The Company Identifier is maintained by NENA in a nationally accessible database.

Consolidated Dispatch

A countywide or regional emergency dispatch service that provides dispatch service for 75% or more of the law enforcement, firefighting, emergency medical service, and other emergency service agencies within the geographical area of a 911 service district or serves 75% or more of the population within a 911 service district.

CRN Contingency Routing Number

A 10-digit, 24x7 PSAP emergency telephone number used for fallback routing if a call cannot be routed through the selective router to the PSAP.

CPE Customer Premise Equipment

Communications or terminal equipment located at a subscriber's premises and connected with a carrier's telecommunication channel at the demarcation point.

Database

An organized collection of information, typically stored in computer systems, comprised of fields, records (data) and indexes. In 911, such databases include master street address guide (MSAG), telephone number/emergency service number (ESN), and telephone customer records.

Database Service Provider

A service supplier who maintains and supplies or contracts to maintain and supply an ALI database or a MSAG.

Dedicated Trunk

A telephone circuit used for a single purpose such as transmission of 911 calls.

- DR Default Routing**
The capability to route a 911 call to a designated (default) PSAP when the incoming 911 call cannot be selectively routed due to an ANI failure or other cause.
- ECRF Emergency Call Routing Function**
A functional element in an ESInet which is a LoST protocol server where location information (either civic address or geo-coordinates) and a Service URN serve as input to a mapping function that returns a URI used to route an emergency call toward the appropriate PSAP for the caller's location or towards a responder agency.
- EMS Emergency Medical Service**
The emergency medical response group established under the Emergency Medical Systems Act of 1972.
- ENP Emergency Number Professional**
A certification program for telecommunicators to encourage professional growth, promote a standard of competence, ensure an awareness of current issues in the 911 field and provide formal recognition of individuals for professional achievement.
- ESN Emergency Service Number**
A number defining the primary PSAP and up to five secondary PSAPs serving a particular telephone number. It is used in conjunction with the selective routing feature of E911 service.
- ESZ Emergency Service Zone**
The designation assigned by a county to each street name and address range that identifies which emergency response service is responsible for responding to an exchange access facility's premises.
- ESGW Emergency Services Gateway**
A component, residing in the VoIP service provider's network, responsible for integrating the SIP network with the emergency services network and routing 911 calls to the appropriate selective router, based on the ESRN/ESQK it receives from the regional call server on the 911 call server.
- ESInet Emergency Services Internet Protocol Network**
An ESInet is a managed IP network that is used for emergency services communications, and which can be shared by all public safety agencies. It provides the IP transport infrastructure upon which independent application platforms and core functional processes can be deployed, including, but not restricted to, those necessary for providing NG911 services. ESInets may be constructed from a mix of dedicated and shared facilities. ESInets may be interconnected at local, regional, state, federal, national and international levels to form an IP-based inter-network (network of networks).
- ESME Emergency Services Message Entity**
The ESME routes and processes the out-of-band messages related to emergency calls. This functionality is sometimes incorporated into the ALI database engine of a selective router.
- ESNE Emergency Services Network Entity**
The ESNE routes and processes the voice band portion of the emergency call. The ESNE is composed of selective routers, which are also known as routing, bridging, and transfer switches.
- ESQK Emergency Services Query Key**
A digit string that uniquely identifies an ongoing emergency services call and is used to correlate the emergency services call with the associated data messages. It may also identify an emergency services zone and may be used to route the call through the network, similar to an ESRK in wireless E911 networks.

ESRN Emergency Services Routing Number

A 10-digit number that specifies the selective router to be used to route a call.

Emergency Telephone Charge

Emergency telephone operation charge and emergency telephone technical charge.

Emergency Telephone District

The area in which 911 service is provided or is planned to be provided to service users under a 911 system implemented under this act. Also referred to as "911 service district."

Emergency Telephone District Board

The governing body created by the board of commissioners of the county or counties with authority over an emergency telephone district.

Emergency Telephone Operation Charge

A charge for non-network technical equipment and other costs directly related to the dispatch facility and the operation of one or more PSAPs including, but not limited to, the costs of dispatch personnel and radio equipment necessary to provide 2-way communication between PSAPs and a public safety agency. Emergency telephone operation charge does not include non-PSAP related costs such as response vehicles and other personnel.

Emergency Telephone Technical Charge

A charge for the network start-up costs, customer notification costs, billing costs including an allowance for uncollectable technical and operation charges, and network nonrecurring and recurring installation, maintenance, service, and equipment charges of a service supplier providing 911 service under this act.

E911 Enhanced 911

An emergency telephone system which includes network switching, database and CPE elements capable of providing Selective Routing, Selective Transfer, Fixed Transfer, ANI, and ALI.

Final 911 Service Plan A tentative 911 service plan that has been modified only to reflect necessary changes resulting from any exclusions of public agencies from the 911 service district of the tentative 911 service plan under section 306 and any failure of public safety agencies to be designated as PSAPs or secondary PSAPs under section 307.

First Responder

Police, fire, or medial resource that is dispatched to handle 911 calls and deliver emergency services.

GIS Geographical Informational System

A computer software system that enables one to visualize geographic aspects of a body of data. It contains the ability to translate implicit geographic data (such as street address) into an explicit map location. It has the ability to query and analyze data in order to receive the results in the form of a map. It also can be used to graphically display coordinates on a map i.e. Latitude/Longitude from a wireless 911 call.

HCAS Hybrid CAS

A combination of CAS (Call Associated Signaling) and NCAS (Non-Call Associated Signaling).

Hypertext Link

A way to connect two Internet resources via a simple word or phrase on which a user can click to start the connection and easily access cross-references.

ISDN Integrated Services Digital Network

A digital interface providing multiple channels for simultaneous functions between the network and CPE.

Internet Protocol Telephony

Blending of voice, data, and video using Internet Protocol for each across the Internet or other existing IP-based LANs and WANs, effectively collapsing three previously separate networks into one.

I2 - NENA Defined VoIP Solution

I2 routes VoIP calls into the current E911 systems and to the correct PSAP with correct ANI and ALI. I2 accommodates both stationary and nomadic users and provides MSAG valid location information and provides a method for nomadic user location either through an automated process or user input via a service prompted, web-based form or equivalent. Intended migratory path from i1.

I3 - NENA Defined VoIP Phase E911 Solution

Also referred to as Long Term, Next Generation 911. This enables end to end IP based E911 design, supporting VoIP originated call delivery and the transition of current wireline and wireless service providers to IP interface technology. Support IP mobility users, and all capabilities of I2. Utilizes extended capabilities of IP to provide location and other information with the call, as well as other sub-sets of relevant.

LRO Last Routing Option

Routing information sent by the VPC that provides a "last chance" destination for a call, for example the CRN or a routing number associated with a national call center.

Lat/Lon Latitude and Longitude

Latitude and Longitude are a coordinate system by means of which the position or location of any place on the earth's surface can be described. Also known as x,y.

LAN Local Area Network

A transmission network encompassing a limited area, such as a single building or several buildings in close proximity.

LEC Local Exchange Carrier

A Telecommunications Carrier (TC) under the state/local Public Utilities Act that provide local exchange telecommunications services. Also known as Incumbent Local Exchange Carriers (ILECs), Alternate Local Exchange Carriers (ALECs), Competitive Local Exchange Carriers (CLECs), Competitive Access Providers (CAPs), and Local Service Providers (LSPs)

LIS Location Information Server

A Location Information Server (LIS) is a functional entity that provides locations of endpoints. A LIS can provide Location-by-Reference, or Location-by-Value, and, if the latter, in geo or civic forms. A LIS can be queried by an endpoint for its own location, or by another entity for the location of an endpoint. In either case, the LIS receives a unique identifier that represents the endpoint, for example an IP address, circuit-ID or MAC address, and returns the location (value or reference) associated with that identifier. The LIS is also the entity that provides the dereferencing service, exchanging a location reference for a location value.

LNP Local Number Portability

A process by which a telephone number may be reassigned from one Local Exchange Carrier to another.

LoST Location to Service Translation

A protocol that takes location information and a Service URN and returns a URI. Used generally for location-based call routing. In NG911, used as the protocol for the ECRF and LVF.

MSAG Master Street Address Guide

A perpetual database that contains information continuously provided by a service district that defines the geographic area of the service district and includes an alphabetical list of street names, the range of address numbers on each street, the names of each community in the service district, the emergency service zone of each service user, and the primary service answering point identification codes.

MCDA Michigan Communication Directors Association

An organization for Public Safety Managers and Directors to support the development and management of their Public Safety Communications Centers.

Mobile Subscriber

A subscriber who uses a wireless device that can be in motion during the call. Wireless Fidelity (Wi-Fi) VoIP is expected to eventually allow the end user to take a home-based telephony connection and roam within an interconnected wireless network, much as cellular technologies allow today.

MLTS Multi-Line Telephone System

A system comprised of common control unit(s), telephone sets, control hardware and software, and adjunct systems used to support the capabilities outlined herein. This includes network and premises based systems. E.g., Centrex, VoIP, as well as PBX, Hybrid, and Key Telephone Systems (as classified by the FCC under Part 68 Requirements) and includes systems owned or leased by governmental agencies and non-profit entities, as well as for-profit businesses.

NASNA National Association of State 911 Administrators

The National Association of State 911 Administrators is a not-for-profit corporation of full time state 911 coordinators whose primary responsibility is to administer 911 programs in their respective states. NASNA members review public policy issues, federal regulations, technology issues and funding mechanisms that impact 911 delivery.

NENA National Emergency Number Association

The National Emergency Number Association is a not-for-profit corporation established in 1982 to further the goal of “One Nation—One Number.” NENA is a networking source and promotes research, planning, and training. NENA strives to educate, set standards, and provide certification programs, legislative representation, and technical assistance for implementing and managing 911 systems.

NOC Network Operations Center

A location from which the operation of a network or internet is monitored. Additionally, this center usually serves as a clearinghouse for connectivity problems and efforts to resolve those problems.

NG911 Next Generation 911

NG911 is an IP-based system comprised of managed IP-based networks (ESInets), functional elements (applications), and databases that replicate traditional E911 features and functions, and provide additional capabilities. NG911 is designed to provide access to emergency services from all connected communications sources, and provide multimedia data capabilities for PSAPs and other emergency service organizations.

Nomadic Subscriber

A subscriber who uses a device that is static during a call but does not have a static IP address assigned to it. Nomadic subscribers use Internet Service Provider (ISP) VoIP, which allows the

end user to establish a telecommunications connection wherever he or she can obtain an Internet-based connection to her ISP provider.

NCAS Non Call Associated Signaling

A method for delivery of wireless 911 calls in which the Mobile Directory Number and other call associated data are passed from the Mobile Switching Center to the PSAP outside the voice path.

Phase I Wireless E911 Service

Dispatch center receives call back number of the wireless phone used to dial 911 and the location of the cell site used to handle the call.

Phase II Wireless E911 Service

Dispatch center receives specific location information of the wireless caller dialing 911, within parameters set by the Federal Communications Commission.

Primary PSAP

A PSAP to which 911 calls are routed directly from the 911 Control Office. (See PSAP below.)

PBX Private Branch Exchange

A smaller version of the phone company central switching office, usually privately owned by a non-telephone business. A PBX connects to the larger telephone network for external call handling, and usually requires dialing an access digit such as 9 or 8 to make an external call.

Public Safety Agency

An entity that provides firefighting, law enforcement, emergency medical, or other emergency service.

PSAP Public Safety Answering Point

A facility equipped and staffed to receive 911 calls. A Primary PSAP receives the calls directly. If the call is relayed or transferred, the next receiving PSAP is designated a Secondary PSAP.

PSTN Public Switched Telephone Network

The international telephone system based on copper wires carrying analog voice data.

Redundancy

Duplication of components, running in parallel, to increase reliability.

Relay Method

A PSAP notes pertinent information and relays it by telephone, radio, or private line to the appropriate public safety agency or other provider of emergency services that has an available emergency service unit located closest to the request for emergency service for dispatch of an emergency service unit.

Secondary PSAP Answering Point

A communications facility of a public safety agency or private safety entity that receives 911 calls by the transfer method only and generally serves as a centralized location for a particular type of emergency call.

Selective Router

The node in the emergency services network that performs enhances call routing for 911 calls. Usually operated by the LEC.

SR Selective Routing

The routing of a 911 call to the proper PSAP based upon the location of the caller.

Service Provider

An entity providing one or more of the following 911 elements: network, CPE, or database service.

Service Supplier

A person providing a telephone service or a CMRS to a service user in this state.

Service User

An exchange access facility or CMRS service customer of a service supplier within a 911 system.

SIP Session Initiation Protocol

SIP is the IP-based protocol defined in IETF RFCs 3261 and 2543. SIP is one of the two dominant messaging protocols used by the VoIP industry.

SS7/ Signaling System 7 (SS7)/Common Channel Signaling (CCS7)

CCS7 An inter-office signaling **CCS7** network separate from the voice path network, utilizing high-speed data transmission to accomplish call processing. (The Public Switched Telephone Network is in the process of upgrading from MF Signaling to SS7.)

SNC State 911 Committee

Effective at its June 24, 2008, meeting, the Emergency Telephone Service Committee changed its name to reflect current systems and technology. Its original creation and purpose remains the same.

Static Subscriber

A subscriber who uses a device that is static during a call and has a static IP address assigned to it. Static subscribers use cable and DSL VoIP, often deployed in static configurations in which the end user stays at a fixed location and uses the standard North American Numbering Plan. Examples of this service include residential landline replacements using cable or DSL connections.

Switch

Telephone company facility where subscriber lines or interswitch trunks are joined to switching equipment for connecting subscribers to each other, locally, or long distance.

(911) System Service Provider

The entity that manages, maintains and provides various 911 elements such as ALI database, MSAG to Public Safety Answering Points. This function is often performed by the LEC.

Tariff

The rate approved by the Public Service Commission for 911 service provided by a particular service supplier. Tariff does not include a rate of a commercial mobile radio service by a particular supplier.

Telecommunicator

As used in 911, a person who is trained and employed in public safety telecommunications. The term applies to call takers, dispatchers, radio operators, data terminal operators, or any combination of such functions in a PSAP.

Tentative 911 Service Plan

A plan prepared by 1 or more counties for implementing a 911 system in a specified 911 service district.

TCC Text Control Centers

Nationally, the wireless carriers and their vendors are establishing a small network of TCC's to interface between carrier-originated wireless 911 text users and the PSAP environment.

Transfer Method

A PSAP transfers the 911 call directly to the appropriate public safety agency or other provider of emergency service that has an available emergency service unit located closest to the request for emergency service for dispatch of an emergency service unit.

Trunk

Typically, a communication path between central office switches, or between the 911 Control Office and the PSAP.

Universal Emergency Number Service

Public telephone service that provides service users with the ability to reach a public safety answering point by dialing the digits "911." Also referred to as "911 Service."

Universal Emergency Number Service System

A system for providing 911 service under P.A. 80 of 1999. Also referred to as "911 System."

V-E2 An extension to the E2 ALI interface (specified in TIA J-STD-036)

V-E2 is defined by the NENA VoIP Location Working Group. V-E2 provides support for a "VoIP" class-of-service indicator in the response message from the VPC to the ALI.

VoIP Voice Over Internet Protocol

VoIP is a system for providing telephone service over the internet.

VPC VoIP Positioning Center

The application that determines the appropriate PSAP, based on the VoIP subscriber's position, returns associated routing instructions to the VoIP network, and provides the caller's location and the callback number to the PSAP through the ALI.

VoIP Provider

A generic term to describe a company that provides VoIP call services. Some VoIP providers provide direct service to the consumer (VoIP service providers). Others provide backbone and PSTN access services (VoIP carriers). Still others provide ESGW (ESGW operators). Some VoIP providers provide more than one of these Services.

WAN Wide Area Network

A network that covers a broad area (i.e., any telecommunications network that links across metropolitan, regional, or national boundaries) using private or public network transports.

Wireless

A phone system that operates locally without wires, using radio links for call transport.

Wireless Emergency Service Order

The order of the Federal Communications Commission. FCC docket No. 94-102, adopted June 12, 1996, with an effective date of October 1, 1996.

Wireless Phase I

Required by FCC Report and Order 96-264 pursuant to Notice of Proposed Rule Making (NPRM) 94-102. The delivery of a wireless 911 call with callback number and identification of the cell-sector from which the call originated. Call routing is determined by cell-sector.

Wireless Phase II

Required by FCC Report and Order 96-264 pursuant to Notice of Proposed Rule Making (NPRM) 94-102. The delivery of a wireless 911 call with Phase I requirements plus location of the caller within 100 meters 67% of the time for network-based caller location systems and within 50 meters 67% of the time for handset-based location systems. (Target start date October 2001.)

Wireless Telecommunications

The family of Telecommunications services under the heading of Commercial Mobile Radio Service. Includes Cellular, Personal Communications Services (PCS), Mobile Satellite Services (MSS), and Enhanced Specialized Mobile Radio (ESMR).

Wireline

The transmission of speech or data using wired connections.